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ABSTRACT

The Significant Bilingual Instructional Features (SBIF) descriptive study, completed in 1983, sought to identify, describe, and verify instructional features that appear to be successful in producing positive classroom experiences and learning outcomes for limited English proficient (LEP) students. SBIF findings are integrated in this report with other research to describe successful instruction for LEP students. The report's five chapters concern: (1) five significant bilingual instructional features (active learning behavior, use of both native language and second language in instruction, integration of English language development with academic skills development, response to and use of information from LEP students' home culture, and effective organizational and delivery of instruction); (2) the demands of instruction for LEP students; (3) developing student functional proficiency; (4) mediation of effective bilingual instruction; and (5) the SBIF study in perspective: implications and issues. Appended is an overview of the SBIF study. Contains 49 references. (LB)

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Applying Significant Bilingual Instructional Features in the Classroom

William J. Tikunoff
Center for Interactive
Research and Development

Part C

NATIONAL CLEARINGHOUSE FOR BILINGUAL EDUCATION
1118 22nd STREET, NW
WASHINGTON, DC 20037

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Preface

The *Significant Bilingual Instructional Features* (SBIF) descriptive study sought to identify, describe, and verify those instructional features which appear to be successful in producing positive classroom experiences and learning outcomes for limited-English-proficient (LEP) students. The study, which was completed in 1983, produced forty technical reports and research documents on the various facets of the study.

However, it is unlikely that these technical reports will find their way into classrooms to impact instructional practice unless findings from the study are transferred into concepts and strategies useful to practitioners. The purpose of this monograph is to reflect on findings from the SBIF study and to put them into a perspective that will facilitate and encourage their use by teachers of LEP students, coordinators of special language services or programs for LEP students, and principals whose schools contain significant populations of LEP students.

To accomplish this, findings from the SBIF study are integrated with information from other research in a way that describes and explains successful instruction for LEP students. In addition, I have drawn upon my experiences both in conducting the SBIF study and in presenting and discussing the findings and their implications with practitioners, policymakers, and researchers over the past two years. What emerges is a framework for understanding the complex process of successfully instructing LEP students to achieve both English language and basic skills acquisition. In addition, the framework helps explain how effective bilingual instruction is similar to and different from successful instruction in general.

The SBIF study is part of the U.S. Department of Education's ESEA Title VII Part C Research Agenda for Bilingual Education. These congressionally mandated studies were designed to provide information regarding the educational needs of LEP students. Funded through the National Institute of Education (NIE) beginning in 1980, the study was conducted in two parts. Part I took place during the 1980–81 school year. Bilingual instruction was studied in 58 classes at six U.S. sites, each serving a different ethnolinguistic student population. Classes observed in this study served primarily students of Puerto Rican, Cuban, Mexican, Navajo, and Chinese (Cantonese speaking) backgrounds. Research for this part of the study focused on the identification and description of significant bilingual instructional features.

In Part II, conducted during the 1981–82 school year, four kinds of verification were established with respect to the generalizability, stability, utility, and compatibility of the Part I findings. A brief description of the technical aspects of the study appears as Appendix A; the complete executive summary is available from the National Clearinghouse for Bilingual Education.

The teachers, students, administrators, and parents at each site deserve a whole-hearted thank you for their cooperation and contributions to the study. Without their participation, the successful instructional strategies discussed here could not have been identified.

In addition, the research staffs at nine collaborating institutions and agencies contributed significantly to the success of the study and are deserving of my

gratitude. They include José A. Vázquez-Faria, Migdalia Romero, and Ana Maria Villegas (Hunter College of CUNY); Roger Kaufman, Maria Masud, and Alicia Rojas (Florida State University); Domingo Dominguez and Ana Huerta-Macias (Southwest Educational Development Laboratory); Gail Goodman, Eugenia Baldwin, Judy Martin, and Jimmy Tsosie (Navajo Nation Division of Education); Sau-Lim Tsang, Kalei Inn, and John Lum (ARC Associates, Inc.); Morris Lai and Milagros Gavieres (University of Hawaii); Alfredo Aragon and Felipe Paris (Northwest Educational Regional Laboratory); Harriet Doss-Willis and Astacia Wright (formerly of CEMREL, Inc.); and the staff at the Far West Laboratory for Educational Research and Development—Larry Guthrie, Elsie Gee, and Charles Fisher, associate director of the study who saw it through to completion.

Special thanks are owed Gilbert García, National Institute of Education, and Edward Fuentes (formerly at the National Institute of Education) for their support and contributions throughout the study. I am grateful for the contributions of Beatrice A. Ward (Center for Interactive Research and Development) to various facets of the study and for her considerable input to this monograph. Finally, I am indebted to the NCBE editorial staff for their care in editing the final product.

William J. Tikunoff

Applying Significant Bilingual Instructional Features in the Classroom

Chapter 1

Five Significant Bilingual Instructional Features

The *Significant Bilingual Instructional Features* (SBIF) descriptive study (1980–83) was designed to inquire into the nature of one aspect of bilingual education—the successful instruction of LEP students. During Part I of the study, 58 bilingual teachers and 232 of their limited-English-proficient (LEP) students were studied for ten full days of instruction, primarily in the basic skills areas. Among other findings, five instructional features were identified and described in Part I of the study, and verified in Part II, as being significant for the instruction of LEP students in terms of obtaining the two goals of bilingual education: (1) acquisition of English proficiency; and (2) at the same time, demonstrated progress toward acquisition of academic or basic skills proficiency. They are summarized later in this chapter and discussed in depth in chapter 4.

The teachers studied were nominated by other teachers, principals, school district administrators, parents, and former students as among the most successful bilingual instructors at their respective sites. In subsequent analysis of data, their effectiveness was established in terms of positive consequences for target LEP students in their classes. Because the study was intended to identify significant bilingual instructional features, it was logical to conduct the study in classrooms where bilingual instruction appeared to be working effectively. This was particularly important given the state-of-the-art of bilingual instruction and its information base.

Since bilingual instruction has been a "grass roots" movement from its inception, those who understand best what it is and how it works are its practitioners.

With a lack of research evidence to guide the specification of instructional treatment for LEP students, practitioners of bilingual education initially designed instruction which built upon (1) their own conventional wisdom and practical knowledge and (2) instructional methods adapted from programs of teaching English as a second language to adults. Two outcomes of these early attempts at developing bilingual education programs have endured and are characteristic of most programs today.

First, in order to develop LEP students' English proficiency, instructional strategies were adapted from English as a second language programs designed by linguists primarily for adults. Many of these strategies are still used in schools today. Second, persons who were reasonably proficient in the native language of LEP students were recruited by school districts and became the bilingual education practitioners.

Today, 17 years after the inception of the Bilingual Education Act, very little empirical information exists that describes the types of special services and instructional strategies that best meet the linguistic and academic needs for LEP students. We still do not have an acceptable theoretical framework to guide the effective instruction of LEP students. Only occasionally have researchers and practitioners been able to establish concretely what services and instructional strategies work. Fortunately, recent emphasis on the study of instruction of LEP students has increased our ability to describe with relative confidence effective bilingual instruction.

The five significant bilingual instructional features identified and described in the SBIF study are a case in point. Throughout the remainder of this monograph, the key characteristics of these features and the ways in which they were employed will be explored.

To be considered significant, a feature had to meet the following four criteria:

1. Each feature had to be identified in the research literature as producing positive instructional consequences for LEP and other students.
2. It must have occurred frequently and with high quality in each of the study classes during observation—in a given classroom, across all classes at a particular site, and across all sites of the sample.
3. During analysis of their own instructional protocols, it must have been identified by the SBIF teachers as being significant for purposes of bilingual instruction.
4. Features or clusters of features had to be associated with desirable consequences for LEP students.

A broad variety of bilingual education approaches was found across the study sites. Curriculum and program content, related instructional goals and objectives, and instructional materials varied widely. In addition, school district policies, educational philosophies, and teachers' theories differed with respect to the instructional approaches thought to be most appropriate for developing LEP students' English language proficiency while teaching them academic skills.

It is important to note that, on the average, regardless of these variations in program focus, school district policies, philosophies of instruction for LEP students, differing ethnolinguistic groups, and curriculum and materials, the 58 teachers in the study exhibited all five significant bilingual instructional features frequently, consistently, and with high quality.

The five instructional features found to be significant for the effective instruction of LEP students are:

1. Successful teachers of LEP students, like effective teachers, generally exhibit the "active teaching" behaviors found to be related to increased student performance on tests of academic achievement in reading and mathematics. This is to say that—
   - Teachers communicate clearly when giving directions, accurately describing tasks and specifying how students will know when the tasks are completed correctly, and presenting new information by using appropriate strategies like explaining, outlining, and demonstrating;
   - They obtain and maintain students' engagement in instructional tasks by maintaining task focus, by pacing instruction appropriately, by promoting student involvement, and by communicating their expectations for students' success in completing instructional tasks;
   - They monitor students' progress and provide immediate feedback whenever required with respect to whether students are achieving success in tasks or, if not, how they can achieve success.
2. Successful teachers of LEP students mediate effective instruction for LEP students by using both L_1 (native language) and L_2 (second language, in this instance, English) effectively for instruction, alternating between the two languages whenever necessary to ensure clarity of instruction for LEP students.
3. Successful teachers of LEP students mediate effective instruction for LEP students by integrating English language development with academic skills development, thus enabling LEP students to acquire English terms for concepts and lesson content even when L_1 is used for a portion of the instruction.
4. Successful teachers of LEP students mediate active teaching by responding to and using information from the LEP students' home culture(s). They (a) use cultural referents during instruction, (b) organize instruction to build upon participant structures from the LEP students' home culture(s), and (c) observe the values and norms of the LEP students' home culture(s) even as the norms of the majority culture are being taught.
5. The instructional intent of successful teachers of LEP students is congruent with how they organize and deliver instruction, and with the resultant consequences for students. In addition, they communicate (a) high expectations for LEP students in terms of learning and (b) a sense of efficacy in terms of their own ability to teach all students.

The significance of these five bilingual instructional features can be demonstrated best by their effect on the performance of target LEP students in the SBIF study. These students were able to decode and understand instructional task expectations and new information in terms of the expected instructional outcomes and knew how to achieve them. As a result, they were able to appropriately and productively complete tasks with a high rate of accuracy. They knew how to obtain feedback with respect to accomplishing instructional tasks, in terms of whether they were proceeding appropriately and, if not, how to obtain the necessary help. In short, they acquired the new skills and concepts that their teachers expected them to learn.

The five significant bilingual instructional features are described and discussed at length in chapter 4. Before turning to this discussion, however, it is important to understand how these features fit into the total environment of classroom instruction and what the consequences are for LEP students. Chapter 2 discusses this in terms of the requirements imposed by the structure of schools per se, in particular the class task demands that comprise the core of learning activities for students. The development of competent student participation in responding to these demands is taken up in chapter 3 in terms of how LEP students achieved student functional proficiency in the SBIF study. In chapter 4 we then return to the five significant bilingual instructional features in order to explore how teachers used them to mediate effective bilingual instruction. Chapter 5 concludes by presenting those questions practitioners frequently ask about the SBIF findings and discusses instructional issues which the findings have triggered.

Chapter 2

The Demands of Instruction for LEP Students

The plight of children who come to school speaking a language other than English has always challenged U.S. educators. Because English is the primary medium of instruction in U.S. schools, limited-English-proficient (LEP) students are denied access to instruction unless they can understand the language in which it is delivered.

Thus, it is commonly assumed that LEP students must learn English as rapidly as possible, and typically, proficiency is determined by administering some test of oral English proficiency. Researchers, however, have found that, for at least two reasons, oral language proficiency measures provide insufficient data for decision making about the schooling needs of LEP students.

First, oral language proficiency measures do not predict how well LEP students will perform on academic achievement tests (Cummins 1981, 1983b; Canale 1983; Oller 1979). Second, they have no relationship to how well a LEP student can perform classroom instructional tasks (Klee 1984; Cummins 1983a, c; Cervantes 1979). Practitioners, too, have found the results of such tests to be insufficient in determining the progress of LEP students with relation to developing the skills and knowledge necessary to accomplish instructional tasks (Tikunoff 1984b).

For these reasons, the *Significant Bilingual Instructional Features* (SBIF) study sought to determine the requirements for a LEP student to function proficiently in accomplishing instructional tasks. A framework was developed which specifies the requirements of instruction in terms of class task demands to which LEP and

other students must respond appropriately in order to be considered functionally proficient in school.

Based on this framework, if a LEP student can accomplish class tasks with a high degree of accuracy when instruction is delivered in English, then it follows that the student has also developed sufficient English proficiency to participate successfully in monolingual English classroom instruction. Thus, the concept of student functional proficiency is presented as a way of sorting out the data which support a teacher's conclusion that a LEP student can handle a monolingual English instructional situation successfully. Observations of LEP students' performance in completing class tasks may serve as a more useful language proficiency measure than oral language tests when the objective is to determine whether or not a particular LEP student is ready to exit from a bilingual to a monolingual English classroom.

This class task demand framework guided data collection interests for the SBIF study and is the subject of this chapter. The discussion that follows presents class task demands in terms of how they are typically structured in U.S. classrooms. Their implications are discussed with regard to the effective performance of LEP students in classroom instruction. How LEP students in the SBIF study were able to negotiate class task demands and to develop student functional proficiency is the subject of the next chapter.

Class Task Demands of Instruction

Teachers and students understand well the notion that schools are work places. Each day begins axiomatically with a teacher's pronouncement, "Okay, let's get to work." Students know that if they are not working, teachers will sanction them to "get back to work." Even when students do not understand what it is they are supposed to be doing, they appear to be aware of the teacher's expectations and try to behave as though they are working in order not to attract sanctions, or they successfully mimic other students' behavior in order to give the impression that they know what they are supposed to be doing.

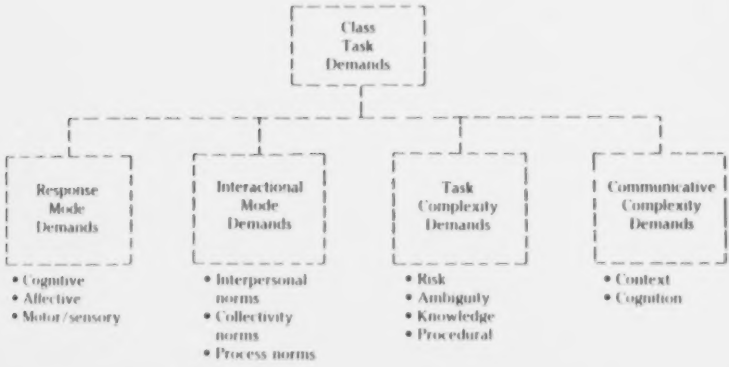
Throughout the United States, schools are structured similarly, organizing experiences and creating demands to which students must respond appropriately if they are to be perceived by adults as competent. One important feature of this structure is the tasks which students must carry out in a classroom. In the discussion that follows, these are referred to as *class tasks*.

When working on assignments, students respond to the demands inherent in class tasks. When they respond appropriately, they appear to be highly engaged, accomplishing tasks with high accuracy. Such student behavior is perceived by the teacher to be competent participation in task completion, demonstrating student functional proficiency. Inappropriate responses to task demands will result in low task completion accuracy or in behavior which draws the teacher's sanctions.

Although class tasks contain demands to which all students must respond, some are more complex for some students than for others for a variety of reasons, and therefore are more difficult and require more time to accomplish accurately. Obviously, for LEP students, achieving competent participation requires both developing English proficiency while concurrently developing proficiency in accomplishing class tasks. Hence, LEP students may inadvertently be placed in instructional situations that are more complex for them than for students who are already proficient in English.

The demands of class tasks are depicted in figure 1 in terms of four types of demands: response mode, interactional mode, task complexity, and communicative complexity. They are treated separately for purposes of defining and illustrating them. During instruction, however, they occur concurrently and interactively.

Figure 1
Class Task Demands



Response Mode Demands

Response mode demands are those that require a student to use cognitive (information processing) skills, affective skills, and motor (physical manipulation or sensory) skills. They are traditionally explained in terms of skill development such as Bloom's (1968) taxonomy of cognitive levels: from knowledge, to comprehension, to application, to analysis/synthesis, to evaluation.

As an illustration of the sorts of response mode demands LEP students are required to meet, consider one of the class tasks observed in an SBIF class and reported in one of the case studies (Villegas & Romero 1981). In a combination first and second grade class, a Spanish reading lesson was conducted. The teacher reported that the purposes of the lesson were (1) to build students' Spanish vocabulary, (2) to promote full sentence descriptions of events, and (3) to

develop students' explanatory skills. The lesson involved several steps. The teacher held up a picture of a boy holding a telephone receiver to his ear and crying. She asked students for Spanish words that described the boy in the picture. As words were given, she wrote them on a chalkboard beneath the label, *Adjectives*. Next, students were asked to describe what the boy was doing. These words or phrases were written on the chalkboard beneath the label, *Verbs*. Finally, students were asked to tell why they believed the boy was doing each of the things listed under *Verbs*. Their responses were written on the chalkboard in a parallel list and labeled, *Reasons*.

During this activity, students raised their hands and took turns responding, while the teacher asked questions to elicit appropriate information. When each of the lists contained eight to ten responses, the teacher wrote across the chalkboard, "Un niño _____ está _____." ("The _____ boy is _____.") She then asked different students to select words or phrases from the lists on the chalkboard and place them in the blanks in the sentence. As each new sentence was formed, she wrote it on the chalkboard.

The response mode demands in this lesson were complex, especially considering the youth of the students. Cognitively, they were required to interpret the meaning of the picture; identify words in their individual Spanish vocabularies that appropriately described, expressed, or explained certain parts of this meaning; and go beyond the obvious information in the picture and construct explanations for the event depicted. Further, since the teacher gave no explanation for the headings of the lists, the students were required to figure out for themselves the reasons words were placed in one list and not another, and to use this information when they suggested words to place in the blanks in the sentence. Some word recognition and decoding skills were also required to read the sentences aloud, although memory of what a student previously may have placed on the lists might have lessened this requirement.

Because the students were required to respond in front of a group of their peers, affective response demands included the ways in which each student responded to other students' answers (e.g., facial expressions, comments made by others), and each student's feelings about volunteering an answer when everyone would know whether or not a response was accepted by the teacher. Motor/sensory demands of this class task required no manipulation of objects or handwriting. However, what was required was the ability to see details at a distance and to differentiate among them.

Information from two of the LEP students' perceptions of the lesson provide insight into the degree to which these first and second grade students understood the demands to which they were to respond. One student, a girl, reported that they [the students] were getting words from their memories and telling them to the teacher. She described the boy in the picture as crying because his mother had gone to the airport and he was calling his grandmother to tell her this. At the end of the lesson, she said students could choose which words they liked best [from the words listed on the chalkboard] and put them together. She liked best

"the boy is eight years old," "The boy is sad," "The boy is holding the telephone," and "The boy is crying."

The other student, a boy, explained, "We were doing sentences." He reported a sentence he had composed, "A small boy is crying." He reported that he chose the words that he was going to use from those listed on the chalkboard and then wrote sentences. He picked words that "sounded good" to him, and said that the teacher checked to see if the words fit with the sentences.

Interactional Mode Demands

Inherent in class tasks are interactional mode demands which require that LEP students understand the underlying rule structures of three kinds of norms. The first is interpersonal norms, such as rules for getting along with others and knowing how to interact productively with peers and adults while completing class tasks. The second is collectivity norms, which include skills such as knowing how to work alone (or with others), knowing how to obtain feedback or clarification concerning task completion, and knowing the rules of membership in what Schlechty (1976) called a "collectivity of individuals" such as a class in a school.

Interpersonal and collectivity norms are particularly important for LEP students to understand in a class with 30 or so students and only 1 or 2 adults since many students may need assistance from the adults at the same time. In addition, different class tasks may require a student to interact with other children in various ways in order to complete them. Such requirements are called process norms—the third set of interactional mode demands. They include such situations as knowing when not to interact with others, i.e., during test taking; taking turns during a teacher-led question-and-answer session; working as a member of a small group to produce a single product; and assuming the role of discussion leader.

An excerpt from another lesson in an SBIF case study is illustrative of the many interactional mode demands to which a LEP student must learn to respond appropriately (Baker & Boothroyd 1981b). One of the interesting features of this lesson is that events external to the lesson imposed demands on the students along with those of the lesson itself.

The lesson was taught to a group of fourth and fifth grade students, some of whom were LEP while others were English dominant. Most of the LEP students' native language was Spanish, but a few had Chinese or a Southeast Asian language as their L_1.

The purpose of the lesson was reading and using abbreviations. At the beginning, the teacher used an overhead projector to display want ads from a newspaper. The first ad was for a rental house. It read as follows:

> Livrm, w/lge stone fplce, dinrm, brkstrm, kit, bath, 3/lge bdrms, expan attic, 2 car gar, lge lot, conv. to transp. immed. poss.

The teacher then projected headings for two lists: *abbreviation* and *whole word*. He called upon students to find abbreviations in the want ad and tell him what words they represented. When all the abbreviations were identified, he projected

the want ad in its complete form with all abbreviated words spelled out, and students identified abbreviations they had decoded incorrectly. Next, they discussed the reasons abbreviations were used in the want ad.

The lesson followed a recitation format with the teacher calling upon various students for input. Following the work with the want ad, the teacher moved on to writing whole words on the transparency such as *post meridian* and *miscellaneous*, calling upon students to give abbreviations for each. Students who were called upon were required to go to the overhead projector and write their answers on the transparency.

Because the lesson occurred during the first half-hour of the school day, the teacher indicated to the observers that students might be coming in after the lesson began if some of the school buses were late. In fact, this is what happened. Approximately 10 minutes into the lesson, 16 students entered the classroom. Eight minutes later, two more students arrived. These external interruptions increased the complexity of the interactional mode demands.

First, students had to determine whether it was all right to carry on conversations with others during the lesson, and if so, how to do this in a way that was acceptable to the teacher. Second, students needed to know how to get the teacher's attention so they could be called upon to provide an answer. Or, if they did not want to be called upon, they needed to know how to avoid the teacher's attention. In fact, the teacher called upon students who did not actively seek his attention, but he allowed them to decline writing the word on the transparency. Students used several methods for obtaining the teacher's attention, such as handraising and calling out, "Please, me," "Let me," and so forth.

In terms of process requirements, going to the overhead projector to write a word on the transparency demanded performance in front of the group. When students made errors, the teacher helped them understand that this was all right. On one occasion, he said, "One thing I like about this class is that we are not afraid to make mistakes."

Students who arrived after the lesson had started needed to know appropriate behavior for entering the classroom late and how to join the group involved in the lesson without drawing the teacher's sanctions for interrupting it. In addition, they had to figure out for themselves the response mode norms of the lesson as it progressed.

Given these circumstances, the participation and perceptions of one of the students who entered late was interesting. This girl entered the classroom approximately 15 minutes after the lesson began. She walked directly to her chair and turned it to face the screen on which the transparency was being projected. She leaned across the table and talked quietly to a girl sitting across from her. The teacher called on her to provide an abbreviation soon after she entered the classroom. She walked to the projector and, as she began writing, the lead in the pencil broke. The other students laughed. The teacher told them to settle down, and directed the girl to continue.

Before she could do so, she had to remove paper from around the tip of the pencil. She wrote the word, *doctor,* on the transparency and the abbreviation, Doc. When the other students laughed, the teacher said that Doc was sometimes used as an abbreviation for doctor, but did she know a better one. She rubbed out *Doc* and wrote *Dr.,* to which the teacher replied, "Fine."

Obviously, several aspects of her participation complicated the interactional demands of the lesson for her: late entry, not knowing the rules for participating in the lesson, a broken pencil lead, and an incorrect response. Further, when the teacher called on her again later in the lesson, some of the students complained aloud that she had been given two turns while they had been given none (although only three students were given no turns at all).

When asked what the lesson was about, the girl said, "Abbreviations." She told the observer she liked having a turn. She also indicated that she had been given no help by other students and had to figure out what to do by herself.

Complexity Demands

In addition to conveying response mode and interactional mode demands, class tasks also contain complexity demands. There are two types of complexity demands: task complexity demands and communicative complexity demands. Both are critical to understanding how LEP students successfully develop English language proficiency while also developing basic skills proficiency.

Task complexity demands. Task complexity demands are made on all students. As with all other class task demands, students must appropriately respond if they are to achieve accuracy in task completion and, in the process, progress toward mastery of basic skills. Task complexity can be determined in terms of at least four dimensions. These are the demands of risk, ambiguity, knowledge, and procedure.

Risk involves the extent to which a student is familiar with the class task and can complete it accurately (Doyle 1979). A student may ask, "Is it a task I have performed before?" Familiar tasks tend to be low-risk tasks. Or is this the first time a student is trying such a task? New tasks tend to be high-risk tasks because students do not know whether they can complete them accurately. Another dimension of risk involves the publicness or privateness of task performance. If tasks are performed publicly, such as during recitation, there is greater likelihood that not knowing the answer will result in public exposure of this fact. The student in the lesson on abbreviations provides an example of this risk-taking. Private tasks, like some seatwork, provide a lower degree of risk.

Ambiguity increases as students are confronted with not knowing what is expected (Doyle 1979). The more information withheld or not understood, the higher the ambiguity of a task. Tasks demanding mere memorization convey low ambiguity in terms of task completion requirements. More complex tasks convey increasing ambiguity directly in relation to how unfamiliar a student is with that task. For example, the first and second grade lesson in which students gave reasons for what was happening in the picture of the boy crying on the telephone

included both low and high ambiguity for some students: words to describe the boy (low ambiguity) or completing a sentence by filling in the two slots (higher ambiguity).

Another dimension of ambiguity is familiarity with task completion procedures (Mergendoller et al. 1982). A student may ask, "Does the task require doing things I have done previously (low ambiguity), or do I have to learn to master new procedures in order to complete the task accurately (high ambiguity)?" For example, the lesson on abbreviations appeared to be one that involved procedures as well as content with which the students had worked previously. However, the sentence completion portion of the lesson involving the picture of the crying boy on the telephone appeared to be new to the students.

Knowledge demands increase as students are pushed from lower cognitive levels to higher cognitive levels (Tikunoff et al. Study B, 1980). A student may ask, "How *hard* do I have to work to complete the task accurately? Is memory involved (relatively low-cognitive level), or am I required to solve unfamiliar problems (relatively mid-cognitive level) or to innovate and invent (high-cognitive level)?" Interestingly, in terms of knowledge demands of the two lessons described above, knowledge demands in the first and second grade lesson ("crying boy") were more complex than those in the fourth and fifth grade lesson ("abbreviations").

Procedural demands concern how many operations are involved in completing a task, and how many must be accommodated concurrently in order to achieve high task accuracy (Tikunoff & Ward 1978). Students may ask, "Am I required to complete operations concurrently (high-procedural level), or can I complete one operation at a time in sequence (low-procedural level)?" Both lessons described earlier ultimately required students to carry out two or more operations to complete tasks. The first and second grade students first gave words to describe only one aspect of the picture, the boy. The fourth and fifth grade students identified abbreviated words in a want ad. Multiple operations were required to complete both tasks, however. The first and second grade students had to recognize characteristics or features of the boy and recall words to describe them. The fourth and fifth grade students had to recognize that a set of letters was not a complete word and recall the word that the letters might represent. Contextual clues in both the picture and the want ad also might have been recognized and applied during this operation.

Obviously, based on all these demands, class task complexity may vary markedly from one task to another, and this, in turn, may impact the ability of an individual student to complete a particular task with high accuracy. Yet teachers may overlook some factors that contribute to the complexity of a task. For instance, prior to the lesson about the crying boy on the telephone, the teacher of the first and second grade students stated in an interview that these students probably would have difficulty putting appropriate words in the slots in the sentence because they had not done this previously in a Spanish lesson. However, since they had tried it once in English, the teacher thought some students would see

the similarity in operations and illustrate to others what to do. The plan was to move one step at a time through the lesson so it would not become overly complicated. After the lesson was completed, the teacher was surprised that students were able to give multiple word answers when they were handling one part of the lesson at a time, such as describing the boy, telling what he was doing, or providing reasons for the way he looked. The teacher felt that putting the parts together into a complex sentence had been difficult for them; however, they had written complete sentences, and many students had used several sentences. The teacher stated that both these outcomes demonstrated the students' understanding of the lesson.

As suggested by this teacher, students with relatively good skills generally will participate competently in most class tasks regardless of the demands that are involved. Conversely, students with poorer skills will sometimes have difficulty when tasks include new demands and more complexity. Sometimes, they will require more time to complete tasks; at other times, even increased time will not guarantee accuracy of task completion. To aid all students, teachers need to take care that tasks that are potentially highly complex be made manageable for all students through the use of devices such as introducing only one piece at a time.

If a student is learning a second language while class task demands are being learned, and this is the language of class instruction, another dimension of complexity enters the picture: the linguistic dimension.

Communicative complexity demands. In discussing the communicative proficiency necessary for LEP students' school learning, Cummins (1982) specified two areas of concern: context and cognition. He described both in terms of continuums, from least to most complex.

With regard to the contexts for second language learning, Cummins noted that LEP students are placed in both familiar and unfamiliar situations. He presented second language learning situations along a continuum from context-embedded to context-reduced. At the least complex end of the context continuum (context-embedded), a LEP student is working with knowledge of the situation and of the contextual clues it contains and uses these to negotiate meaning of the context. The other end of the continuum (context-reduced) represents those situations in which the clues are unrelated to anything the LEP student has previously experienced or are so subtle that a LEP student must "suspend knowledge of the 'real' world in order to interpret (or manipulate) the logic of communication appropriately (context-reduced)" (Cummins 1982).

In the "crying boy" lesson presented earlier, the ways in which two of the LEP students participated in the lesson provide insights into their familiarity with the instructional context. During the lesson, the girl sat and looked at the teacher most of the time. She raised her hand to provide a descriptive word only once, and this was after quietly checking her response with the teacher aide to be certain it was appropriate. Since she spoke Spanish as it is spoken in Mexico, while others in the class were from Puerto Rico, the word provided was unfamiliar to the others. Hence, even though the instructional situation seemed to be familiar

to this student and therefore at the lower end of the continuum of context complexity, differences in her Spanish vocabulary increased the complexity of the situation. Even though her responses were appropriate in terms of her Spanish comprehension, they induced reactions in the other students that suggested to her that she was in error. To avoid such reactions, therefore, she learned to check with the teacher aide before volunteering before the class.

Another student, a boy, appeared to be familiar with the instructional context and therefore seemed to be at ease during the lesson. He raised his hand each time the teacher asked for a new word or phrase. In addition, he quietly made a side comment to the teacher while she was standing near him, and she asked him to repeat it for the entire class. When he did, she told the others that he had said, "The boy is sad," and wrote the sentence on the chalkboard. He also called out answers to help students who were having difficulty providing their responses in complete sentences. When he had completed writing his sentences on his work paper, he called out, "Finished" in order to draw the teacher's attention. She came to him, looked over his paper, and nodded her approval. For this student, the instructional context was familiar and, therefore, at the lower end of the context continuum.

As LEP students interact with contexts, they also engage in communicative tasks or activities. In addition to being more or less demanding depending on the students' familiarity with the context, the amount and complexity of new information that must be processed simultaneously in order to understand the context and respond appropriately add to the communicative complexity of class tasks. As one might expect, the lower end of Cummins' continuum of cognitive complexity represents contexts that require relatively little cognitive processing. Few cues and little new information must be noted and responded to. As LEP students move toward more cognitively demanding contexts, however, they must sort out new pieces of information, test theories about how to communicate best in such a situation, construct hypotheses about what might happen if a particular strategy is tried, and so forth.

Cummins points out that a LEP student who truly understands no English and is not familiar with the rules of social or classroom discourse must consistently operate in situations that are both cognitively demanding and contextually complex. To illustrate the communicative complexity confronting a LEP student in accomplishing class tasks, consider the example of a reading lesson in a fifth grade class from an SBIF case study (Guthrie 1981). Students included LEP students whose L_1 was a Chinese language. During the lesson, students were to work at four learning stations. The first involved completion of exercises in a reading workbook. The second involved a worksheet illustrating various signs such as stop signs, students were to write in English what each sign meant. The third involved using a telephone directory to locate numbers for various individuals whose names were listed on a worksheet, and to locate and write the names and numbers of two to three firms that sold various products. Thus, students were required to use both the white- and yellow-paged sections of the

telephone directory. The fourth station was a reading group session with the teacher.

One of the LEP students, a girl, appeared not to respond appropriately to the communicative demands of the lesson. For instance, although she watched attentively as the teacher explained the work in each center, she responded to no questions until the teacher asked her a question in Cantonese. Even though the girl was named the leader for the group in which she was placed, which meant she was to help other students who needed it, she did not interact with other students. Rather, she sat quietly at each station and did her work. In the reading session with the teacher, the girl did respond to several questions addressed to her in English. When she was asked to read she did so, but in a voice that was almost inaudible, which caused other students to comment that they could not hear her.

Whether or not this student understood all the communicative demands to which she was expected to respond was not clear. If she understood them, she apparently opted not to respond. When asked about the lesson, she only spoke about the reading session with the teacher.

In contrast, a boy who was more skilled in English participated actively in this lesson. He volunteered answers before being called upon, completed assignments at the work stations quickly, then got a book and sat down to read. He conversed with other students who had completed their assignments and were also reading books. He was sanctioned by the teacher only once for responding before being called upon, although he did this innumerable times. He received another teacher sanction when she asked if students who were reading books were helping each other or just talking.

When asked about the lesson afterward, this student appeared to be familiar with the procedures and processes and appeared to understand the subtleties of the communicative demands present in each of the situations in which he was observed. This included insights into ways to circumvent regular classroom rules regarding participation in group discussions and interactions with other students. For this boy, the context and cognitive cues seemed to be less complex than for the girl described earlier. His knowledge of the language of instruction may have contributed to his capability to respond appropriately. He also may have been more familiar with the rules of classroom discourse in general.

The preceding discussion illustrates the complexity of the demands of classroom learning. To participate competently, students are required to respond to a variety of demands inherent in the class tasks they are assigned—response mode demands, interactional mode demands, task complexity demands—all of which are at work concurrently and interactively during instruction. In addition, LEP students must respond appropriately to communicative complexity demands embedded in instruction in order to be perceived by their teachers to be functionally proficient.

Chapter 3

Developing Student Functional Proficiency

The real test of whether students require special services of any sort with regard to schooling is to know if, given all the instructional demands described in the previous chapter, they can successfully complete class tasks. In the case of students of limited English proficiency, *student functional proficiency* is demonstrated when they participate competently in a classroom when instruction is primarily in English. Such competent participation requires accomplishing class tasks with reasonable accuracy while concurrently observing and responding appropriately to the four kinds of demands inherent in them: response mode, interactional mode, task complexity, and communicative complexity.

The purpose of this chapter is to specify a conceptual framework for student functional proficiency (SFP) as it was developed in the SBIF study. Various facets of the SFP framework are explained and illustrated, building upon information from the study. Also considered are the ways in which LEP students participate in class tasks and whether the various forms of participation aid or abet a student's functional proficiency.

In practice, teachers rely upon some measure of functional proficiency as they make daily decisions about student performance. This principle was illustrated by teachers in the SBIF study. When asked how they knew students were ready to exit from their bilingual instructional programs, they provided descriptive examples of competent student performance on class tasks when instruction was delivered primarily in English.

For example, the teacher of a first grade SBIF class with a large number of LEP Navajo students explained, "I don't have a special instrument to tell me they [the

students] have succeeded. Mostly it is through their verbal responses and [my] observations while they are working. . . .Each individual has a folder. After school [each day], I go through all the folders and make sure who did and didn't do what [work]" (Goodman et al. 1981). A teacher in a class with a large number of LEP Chinese students stated, "It is from working with the students that I know [they are making progress]. . . .When I really know is judging from the look on a [student's] face, [and] an attitude toward school. . . .When the finished product demonstrates that they understood [the information required] and how to work" (Guthrie 1981).

Further, practitioners who participated in the Utility Meetings conducted in Part II of the study stated that they seldom trusted test results as the sole evidence that students were ready to exit from bilingual instructional programs. Instead, they relied on their own observation and evaluation of the competence of students' classroom performance (Tikunoff 1983b). Thus, it is not surprising that, while many districts use some formal assessment instrument to determine LEP students' oral English language proficiency (in 90 percent of those districts surveyed in a recent study), reliance upon teacher judgment is still the overwhelming criterion for deciding when a student is ready to exit to a monolingual English classroom (85 percent used teacher opinion or recommendation) (Cardoza 1984). Mace-Matluck (1982) concurred, stating, "Teacher evaluation of the student's 'readiness' to perform in an all-English curriculum is gaining ground as a prime consideration in termination of special language services."

This principle—student functional proficiency—is at work whenever teachers recommend that a LEP student is prepared to receive instruction primarily in English. However, like many practitioner-based procedures, it exists without benefit of a conceptual framework to inform construction of measurement strategies that attest to its presence or absence in the classroom performance of a student. Clearly, it is time to turn to this task.

A Framework for Student Functional Proficiency

The goals of bilingual education have been described as a "dual-edged sword." On the one hand, LEP students are expected to develop English language proficiency. On the other, they are expected to do so while continuing their progress in basic skills development.

Given the description presented in the previous chapter of the demands which underlie class tasks and the dimensions of instructional activity, it is apparent that measuring only oral English language proficiency is insufficient either for assessing placement of LEP students in special language services programs or for determining when they are ready to exit from such programs. Far more is at work as students respond to the multiplicity of demands that comprise successful class task completion.

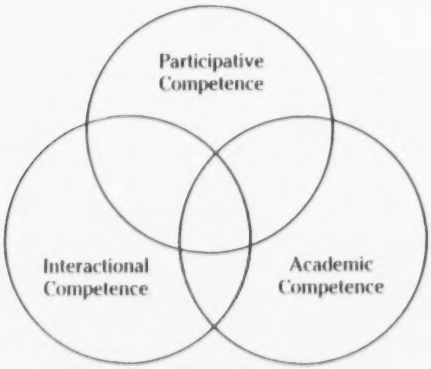
A LEP student who is functionally proficient in class tasks demonstrates more than oral language proficiency. A full range of strategies is utilized to respond appropriately to the demands of instruction. These strategies are inherent in three

competencies demonstrated by a functionally proficient LEP student: participative competence, interactional competence, and academic competence. They are depicted as the interactive competencies of student functional proficiency in figure 2.

Participative competence requires that a LEP student respond appropriately to class task demands and to the procedural rules for accomplishing them.

Interactional competence requires that a LEP student respond appropriately both to classroom rules of discourse and social rules of discourse, interacting appropriately with peers and adults while accomplishing class tasks.

Figure 2
Competencies of Student Functional Proficiency



Academic competence requires that a LEP student be able to acquire new skills, assimilate new information, and construct new concepts. In doing so, the student must acquire academic language from each of the content areas and work at increasingly more complex cognitive levels.

These three competencies comprise student functional proficiency. The intersect of all three SFP competencies at the center of figure 2 is intended to convey a LEP student's ability to successfully apply all three concurrently and interactively in a classroom setting, thereby (1) acquiring English language skills and (2) accomplishing class tasks accurately in order to further develop academic skills. Lack of competencies in any one of these, no matter how skilled a student might be in the other two, will limit the ability to successfully complete class tasks.

To understand how SFP is developed, it is important to know how competent LEP students respond to the demands of class tasks. We turn next to a description of this response.

A Functionally Proficient Student

To be perceived as functionally proficient, a student must be able to utilize participative, interactional, and academic competence to perform three major functions: (1) to decode and understand both task expectations and new information; (2) to engage appropriately in completing tasks, completing them with high accuracy; and (3) to obtain accurate feedback with relation to completing tasks successfully (Tikunoff 1984a, 1983c; Tikunoff & Vázquez-Faria 1982a). These characteristics of a functionally proficient student are shown in figure 3.

Understanding Task Expectations

The first characteristic of functionally proficient students is that they understand the task expectations and the new information necessary to complete instructional assignments. These build from the class task demands discussed in chapter 2. They include concepts and skills that are to be learned, knowledge of what the intended product or outcome of class tasks should be when completed, and information about how to accomplish them.

Figure 3
Characteristics of a Functionally Proficient Student

Functionally Proficient Students

1. Decode, understand
   - Task expectations (what product should look like; how to complete accurately)
   - New information
2. Participate productively
   - Maintain productive engagement on assigned tasks and complete them
   - Complete tasks with high accuracy
   - Know when successful in tasks
   - Observe norms (meet teacher's expectations)
3. Obtain feedback
   - Know how to obtain accurate feedback *re*: task completion, i.e.,
     a. whether achieving accuracy
        or if not,
     b. how to achieve accuracy

This SFP characteristic was illustrated in a lesson observed in a second and third grade SBIF classroom which included LEP Cuban students (Rojas et al. 1981). The lesson was in social studies and focused on what to do if one were to

get lost. During the first part of the lesson, the students read aloud a story written in English, "Lost in the Woods." The teacher translated each sentence into Spanish after it had been read aloud in English. Next, the teacher asked two students to dramatize a situation in which they were lost in English. The final segment of the lesson required the students to draw a map diagramming the path they took to get home from school.

When asked what the students were supposed to do during the lesson, one girl who was able to carry on a conversation in English replied that it was important to know their addresses and that she made a map to show where her home was.

Another girl who had difficulty with English said the lesson was about "getting lost," and that she had drawn a map to show "getting from my house to school."

A third student, a boy with limited English, said, "We were studying a map," that he "drew how to go to school and home," and that he had learned about "how to go home alone."

Another boy who had arrived in the United States only at the beginning of that school year and had very limited English proficiency was less precise in his description of the lesson. When asked what he had done, he showed the interviewer a beautiful map but could not explain either in English or in Spanish what it demonstrated. However, he did say he could find his way home from school by using the streets in the city and by looking at the sun (a clue that was in the story). This indicated he had some notion of the lesson content as well as the product he was supposed to produce.

The teacher contributed significantly to furthering students' understanding of the lesson. Reading the story in English, followed by a translation into Spanish, no doubt ensured that students with very limited English skills understood the content of the story. The student dramatization of being lost and the group discussion which followed illustrated key points of the lesson. The teacher also drew a model map on the chalkboard which provided an illustration of what the completed product was to look like. Students were allowed to talk quietly and to help one another draw their maps. As one boy put it, "I helped another boy because he is still in Spanish language and doesn't know [what to do]."

Participating Productively

Communication makes possible understanding a teacher's expectations with regard to tasks and normative behavior, and makes available the new information necessary to complete tasks, but it is up to the students to put all this information into operation. When they do so correctly, then students can maintain productive engagement on tasks, completing them with a high degree of accuracy. This is the second characteristic of a functionally proficient student.

Much has been written about the importance of student engagement in completing tasks: the more time spent on a task, the more chance that learning will result. The research on time-on-task, however, has tended to focus only on engagement. An equally important facet of task completion is the accuracy with which a student completes tasks. Fisher et al. (1978) showed that high engagement, combined with high accuracy in completing classroom instructional tasks,

correlated positively with student performance on achievement tests in reading and mathematics, at least at the elementary school level. Thus, it appears that it is essential for students to work toward high accuracy as well as high engagement when completing class tasks. In turn, it is important that teachers adjust class tasks for individual students so that task demands are at both the appropriate ability level and conceptual level in order to maintain high accuracy.

Engagement and accuracy in completing class tasks were obtained for the student sample in the SBIF study. Two types of procedures were used. First, protocols of students' behavior as they participated in completing class tasks were developed as narrative descriptions. Second, the amount of time teachers allocated to basic skills instruction (e.g., reading, other language arts, and mathematics) was measured, along with what percentage of this time target LEP students were engaged with high accuracy in completing tasks. A measure called Academic Learning Time (ALT) was used for this latter purpose.

Descriptions of students' participation. Descriptions of lessons in the SBIF study illustrates how productively students participated in completing class tasks. In a fifth grade class with many LEP Chinese students (Lum 1981), a language arts lesson required students to work in pairs to develop creative sentences. The teacher's goals were to develop writing skills and to develop the skills of sharing and cooperating. The latter was a relatively new interactional demand for students since this was the first time the teacher had demanded that students work in pairs to write sentences.

One boy, whom the teacher described as not knowing English well, participated as follows in the writing lesson:

When the teacher reviewed how the expanded sentence was supposed to be done, the student seemed attentive. He did not volunteer when the teacher asked the class for suggestions. He just sat and observed, although he did glance around the room once in a while.

During the actual activity, he was supposed to be giving ideas for his partner to write down, but he was generally quiet since his partner did not only the writing but the creating, too. He often displayed a puzzled frown. When his partner pointed to something on the paper, he responded in a voice inaudible to others around him. When his partner walked away, he wrote on the paper. When his partner returned, they talked over what he had written. Having apparently finished, the boy sat quietly, not doing anything else, waiting for the teacher's next directions.

When the time came for the teams to read their results, the boy hesitantly raised his hand, but pulled it down quickly and looked down at his paper. When he was called upon to read his team's results, he managed a shy grin and then pushed the paper to his partner, motioning for him to do the reading aloud. His partner pushed the paper back. Forced to do the reading aloud, he read so softly that the teacher had to shush the class. He reread the sentences.

Based on this description, the target student appeared to maintain his engagement in the assigned task, to complete the task with high accuracy, and to know

when he had completed the task successfully. Although his contribution to the team effort may not have equaled that of his partner, he did appear to add to the writing. Further, he knew what had been written well enough to read the sentences when called upon by the teacher.

When asked by the interviewer if he and his partner had written good sentences, the boy replied that he did not know but that his partner did better work than he did. Inasmuch as the teacher had purposely paired him with a partner who had considerably better English skills, this probably was an accurate observation. Afterward, the teacher indicated her pleasure in his being able to read the sentences aloud in English.

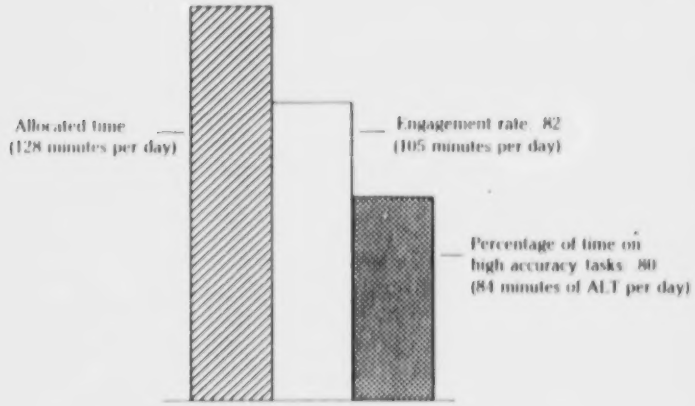
Because this student was not sanctioned by the teacher for misbehavior and responded appropriately when called upon by the teacher, he appeared to meet the teacher's expectations with relation to all the demands of the class task.

Student participation in terms of ALT. Student participation was also measured using Academic Learning Time (ALT). A student's ALT score is a function of the amount of time allocated by the teacher to a subject area, the amount of time a student is engaged in completing tasks in this subject area, and the proportion of this time a student achieves high accuracy in task completion. Fisher et al. (1978) established that ALT can be observed during instruction, can be measured repeatedly, and can be correlated positively with student achievement. Using an ALT scoring form and a stopwatch, data were obtained for four target LEP students during each classroom observation in all 58 classes in the study. These observations took place in each class during basic skills instruction (reading, language arts, and mathematics) across three full school days. By combining the scores for all target LEP students, average amounts of ALT for the 232 students in the sample can be considered (see figure 4).

The first bar in figure 4 indicates that across all 58 SBIF classes, teachers allocated an average of 128 minutes per day to basic skills instruction. If this total amount of time seems low, it is important to remember that classes in the study were predominantly from kindergarten through sixth grade, with an oversampling in the early grades. The school day for younger children tends to be shorter than others, thus limiting the time available for instruction of any sort. Further, only actual time spent on instruction was recorded as allocated time. Time spent getting ready for lessons, making transitions between lessons, or handling discipline problems was not counted. Hence, an average time of 128 minutes per day for basic skills instruction seems reasonable.

The middle bar in figure 4 represents the average amount of time the target LEP students actually were engaged in completing assigned class tasks during basic skills instruction. This does not include time when students were doing something other than what they were assigned, or when their attention was drawn away from the task at hand. All 232 target LEP students on the average were engaged 82 percent of the time. Thus, of the 128 minutes allocated to basic skills instruction, target students spent an average of 105 minutes participating productively in completing assigned class tasks.

Figure 4
ALT in Reading/Language Arts and Mathematics for Target LEP Students, Part I of SBIF Study



For all target students, observers first recorded the amount of time a student was engaged in completing the assigned class tasks, and then recorded the portion of the time that student was accurate. As indicated by the third bar in figure 4, of the 105 minutes target LEP students were engaged in task completion, they were completing assigned class tasks accurately 80 percent of this time, or 84 minutes on the average. This amount of time is referred to as Academic Learning Time since it represents the portion of allocated instructional time during which students were productively engaged in completing class tasks in basic skills instruction with high accuracy.

This amount of ALT is relatively high compared to ALT achievement of elementary school students in prior studies (Fisher et al. 1978; Fisher 1976; Stallings & Kaskowitz 1974). In the *Beginning Teacher Evaluation Study*, for example, students in second and fifth grade monolingual-English classes achieved ALT for less than half the time allocated to instruction in reading and mathematics (Fisher et al. 1978).

Both the descriptive data and the ALT data obtained for target LEP students in the SBIF study indicate that they participated productively and accurately in completing assigned class tasks during basic skills instruction. At least part of the reason was their ability to obtain feedback about task completion. How they accomplished this is discussed next.

Obtaining Feedback

The third characteristic of a functionally proficient student is the ability to obtain accurate feedback relative to whether accuracy is being achieved in class

task completion, or if not, how to achieve accuracy. This requires that students know how to obtain feedback, either from the teacher or from someone else in the classroom who possesses the appropriate information. In addition, of course, students must accomplish this within the established rules of classroom interaction.

This characteristic of a functionally proficient student was explored in a series of case studies of lessons. Following each observed lesson, target LEP students were interviewed by observers and asked a series of questions to determine their understanding of the class task requirements. Two of these questions focused on how students knew if they were doing well, and where they went for help in completing class tasks.

Examples of target LEP students' responses to these questions are taken from a variety of classes at varying grade levels serving LEP students of different ethnolinguistic backgrounds (see case studies by Lum 1981; Huerta-Macias 1981; Baker & Boothroyd 1981a; and Goodman et al. 1981).

In terms of how they knew how well they were doing, students made comments such as:

Student	Comment
grade 1, Navajo girl	I finished my work and did real good. When I gave it to the teacher, I got a happy face.
grade 1, Navajo boy	The teacher checks the work. If you do it right, she will give you a happy face. If you do it wrong, she will ask you to do it [over] again.
grade 2, Mexican American boy	I did okay, but I got a *U* [unsatisfactory] on my paper.
grade 2, Mexican American girl	I did good because nobody helped me. I know the teacher will give me a happy face on it.
grade 5, Mexican American girl	The teacher checks it [student work], the answers, and marks it.
grade 5, Mexican American boy	I paid attention. The teacher will check my workbook and mark it.

It is interesting to note that most of the comments focused on what the teacher will do once the work is completed. Little attention, if any, was given to ways in which students might check their own performance while engaged in task completion.

Nonetheless, students seemed to be aware of times when they needed help, and they appeared to know how to get it. The grade 1 Navajo girl stated that, when she didn't know how to do her work, the teacher helped her, but that "it's okay not to go to the teacher if you don't need help." The grade 2 Mexican American boy believed that the teacher would help him if he needed it. The

grade 2 Mexican American girl said that she hardly ever asked the teacher for help. The grade 5 Mexican American girl said that the teacher would help her, and that "it's okay for friends to help, too." In another grade 5 class, a Chinese girl was observed going to the teacher aide for assistance, and a Chinese boy was observed going to the teacher for help. When asked about this, he told the observer that the teacher also would help him at recess and after school if he needed it.

The LEP students in these case study classes appeared to know how accurately they were completing class tasks, and how to obtain feedback and assistance whenever necessary so that their work could be accurate.

Student Participation Patterns

The preceding discussion of the characteristics of a functionally proficient student provides behavioral indicators that a student knows the requirements of the demands inherent in class tasks, and is working toward accuracy in class task completion. However, it is important for teachers to understand that different students may exhibit these characteristics in different ways. That is, they may have very different patterns of participation in class task completion.

Ward (1982), for example, identified six different patterns of student participation, apparently based on personal interactional styles. These six patterns—multitask, social, dependent, phantom, isolate, and alienate—were used in the SBIF study to distinguish participation characteristics across various ethnolinguistic groups of students.

Multitask students generally are highly competent. They almost always are involved in completing class tasks, frequently carrying out several tasks concurrently. Although they seldom volunteer, they give correct responses to a teacher's questions when called upon. Multitask students seldom need a teacher's help, but they actively seek it whenever necessary.

Social students also function proficiently during class task completion, but they mix brief periods of concentration on completing class tasks with conversation. They like to work with others, and enjoy acting as peer tutors. Social students volunteer answers during recitation, and sometimes appear to be more interested in answering than in giving correct answers. Although they frequently draw sanctions for talking out-of-turn, they accomplish class tasks with relatively high accuracy. Whenever they need help or clarification, they also actively seek assistance from the teacher.

Dependent students require immediate and frequent monitoring and feedback. They experience difficulty in remembering directions, and need to have sequential steps for accomplishing tasks repeated. Dependent students tend to be inattentive in large groups, and stay on task more frequently when working in small groups under adult supervision. Some dependent students will not stay engaged in task completion unless given frequent reinforcement and approval.

These students function proficiently only when the teacher or another adult (or sometimes a peer tutor) is readily available to tell them whether they are achieving accuracy in class task completion and, if not, how to modify what they are do-

ing to achieve it. For these students to exhibit the characteristics of a functionally proficient student requires clear instructions and constant monitoring of their work. Limited proficiency in the language of instruction increases the dependence of these students.

Phantom students prefer to work alone, and almost never initiate conversation or ask for assistance. They prefer not to volunteer, but will respond when called upon to do so. Because they work quietly and create no problems for others, teachers seldom initiate interactions with them. However, they tend to function proficiently, completing class tasks accurately. They are particularly successful on independent tasks, such as completing worksheets and other individualized tasks.

Isolate students, like phantoms, seldom interact with others. However, their withdrawal from classroom interactions (instructional and otherwise) tends to make them less proficient in completing class tasks. They intersperse sporadic engagement in assigned class tasks with quiet play or gazing about the classroom. They isolate themselves from others, often turning their bodies or chairs away from, rather than toward, the instructional situation. Other students and adults tend to isolate them as well, refusing to associate with them. Isolate students are reluctant to show their work to others or to allow others to react to it.

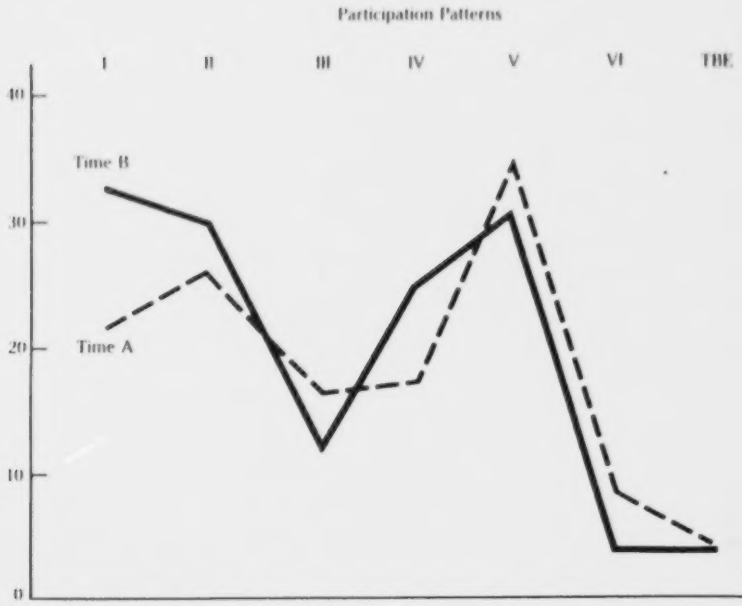
Alienate students are antisocial, and verbally or physically act out their anger against school, adult authority, and their peers. Teachers identify them as discipline problems because they tend to keep others around them from working productively on class tasks. They do not remain engaged on tasks unless they are closely supervised. Their behavior often stems from problems outside the classroom over which the school has little control.

These six student participation patterns were used in the SBIF descriptive study to distinguish participation characteristics across various ethnolinguistic groups of students. Tikunoff and Vázquez-Faria (1982a) revealed how they varied across the SBIF study student sample. Three participation patterns were ethnolinguistically relevant.

Hispanic students tended to work more productively when they were allowed to work together, either in pairs or in small groups. They appeared to be social in their participation, talking among themselves as they worked at task completion. On the other hand, Navajo children more frequently worked quietly, accomplishing class tasks alone, seldom initiating interaction with the teacher or with one another. Chinese-speaking LEP students had high engagement on class tasks, and when tasks were completed, they waited quietly and patiently until the teacher told them what to do next.

Teachers apparently understood these cultural variations and made use of them in structuring class tasks. This was one of the ways they mediated instruction. As a result, students became more functionally proficient in accurately completing assigned class tasks.

Figure 5
Target LEP Student Participation Patterns Across Time, Part I of SBIF Study



Type I = Multitask; Type II = Social; Type III = Dependent; Type IV = Phantom; Type V = Isolate; Type VI = Alienate; TBE = To be explored (for those students who did not fit one of the six participation patterns, note that all students were appropriately assigned to a pattern at Time B)

How student participation changed over time in the SBIF classes is illustrated in figure 5. Data consisted of (1) teacher ratings of students' participation patterns before the study began, and after it was concluded; and (2) narrative descriptions of student behavior (protocols) developed by trained observers. The dotted line represents the percentage of students for the entire sample assigned to each of the six participation patterns at Time A (January-April, 1985), and the solid line represents the same data for Time B (May-June 1981). As can be seen, the number of multitask, social, and phantom patterns increased, and the number of dependent, isolate, and alienate patterns decreased. As is apparent in figure 5, changes in student participation patterns were of a positive nature.

The largest proportion of students initially identified as possessing less competent participation patterns were students who had recently arrived from coun-

tries outside the United States or from Puerto Rico. At first, recently arrived students frequently participated in nonproductive ways, possibly out of sheer frustration from having to handle so much new information. However, teachers were able to help them cope with instructional demands which might differ from those they had previously experienced. Perhaps as a result of their teachers' efforts, within a few months many of these students moved from highly dependent participation patterns to more social and multitask patterns, and from isolate or alienate patterns to dependent or social patterns.

Several other general observations about the six participation patterns are relevant. First, of the six patterns, three are important in terms of student functional proficiency in completing class tasks accurately, and whether or not students learn new skills.

Both isolate and alienate students, obviously, do not learn, or at best, learn only sporadically. In addition, alienate students frequently are the source of disruption in the classroom. Sufficient numbers of either kind of student in a class will cause the pace of instruction to slow down because teachers have to handle their disruptive behavior. When there are large numbers of these students in a class, the engagement and accuracy rates of other students may suffer because the teacher's efforts are directed away from instruction.

Dependent students present the teacher with another sort of problem. Dependent students will learn *if* they are provided frequent clarification, monitoring, and feedback concerning task completion. Otherwise, their lack of ability to sequence information at a complex level causes them to get off task easily. In fact, they frequently stop working and wait for someone to help them. If this happens, their accuracy rate diminishes as well. Effective teachers quickly identify these students, and create "check-in" systems with them as instruction proceeds.

Because of the frequent attention they may require, large numbers of dependent students in a single class may slow the pace of instruction for the remainder of the class. Some effective teachers learn to deal with this by assigning "buddies," or peer tutors, to dependent participants. They usually select a student who can provide accurate feedback and information with respect to class task completion and accuracy. Frequently, social students make good peer tutors.

Thus, it is apparent that students who exhibit multitask, social, and phantom participation patterns typically function proficiently in classrooms. However, too many students who exhibit dependent, alienate, or isolate participation patterns in a single class can pose tremendous challenges for a teacher. At the secondary school level, this is exacerbated primarily because of the tracking that begins to take place. Students who take subjects such as algebra, foreign languages, and advanced sciences are likely to be functionally proficient students. Dependent, isolate, and alienate participants are unlikely to take these classes. Thus, two conditions tend to prevail. Multitask, social, and more proficient phantom students end up together in classes throughout the school day; and conversely, dependent, isolate, alienate, and less proficient phantom students tend to spend the day together in their classes.

A student who demonstrates competent participation in completing class tasks with high accuracy is said to be functionally proficient. Three competencies comprise student functional proficiency (SFP) as discussed here: participative competence, interactional competence, and academic competence. SFP is particularly important with relation to LEP students because it provides an observable means for determining students' success in accurate class task completion. When students are functionally proficient, they exhibit productive participation characteristics. They understand class task demands and respond appropriately to them and know how to get appropriate information in order to complete class tasks. Thus, they are achieving both goals of bilingual education: developing English language proficiency while progressing in academic skills development.

Chapter 4

Mediation of Effective Bilingual Instruction

The 58 teachers who provided the sample for Part I of the SBIF study were nominated as among the more successful instructors at their respective sites. Before the study commenced, instruction in their classes was observed to ensure that some of the time they were instructing in both English and the LEP students' native language (L_1). That they achieved the results reported here attests to their skill and effectiveness.

As we have seen, the demands of schooling require that a LEP student be able to respond appropriately to the class task demands when instruction is primarily in English. Teachers in the SBIF study contributed to developing student functional proficiency (SFP) in their LEP students in three major ways: (1) by providing effective instruction in the use of active teaching behaviors, (2) by mediating effective instruction to accommodate the learning, participation, and ethnolinguistic characteristics of their students; and (3) by designing and delivering instruction that was consonant with their intent in order to produce desired student consequences. These three major teacher acts delineate the five significant bilingual instructional features identified in the study. They also serve to contrast effective bilingual instruction with effective instruction in general.

Active Teaching Behaviors

Obviously, a student who exhibits the characteristics of a functionally proficient student will do well. Good and Grouws (1979) have shown that what they called "active teaching behaviors" facilitate development of student functional proficiency.

Figure 6
Relationships of Characteristics of a Functionally Proficient Student with Active Teaching

So that students can:

1. Decode, understand
   - Task expectations (what product should look like; how to complete accurately)
   - New information
2. Participate productively
   - Maintain productive engagement on assigned tasks and complete them
   - Complete tasks with high accuracy
   - Know when successful in tasks
   - Observe norms (meet teacher's expectations)
3. Obtain feedback
   - Know how to obtain accurate feedback re: task completion, i.e.
     a. whether achieving accuracy

        or

     b. how to achieve accuracy

Teachers must:

1. Communicate clearly:
   - Give accurate directions
   - Specify tasks and measurements
   - Present new information by explaining, outlining, summarizing, reviewing
2. Obtain, maintain engagement
   - Maintain task focus
   - Pace instruction appropriately
   - Promote involvement
   - Communicate expectations for successful performance
3. Monitor progress
   - Review work frequently
   - Adjust instruction to maximize accuracy
4. and provide immediate feedback
   - Re: task completion so students
     a. know when they are successful

        or

     b. are given information about how to achieve success

Figure 6 illustrates the relationship of the characteristics of a functionally proficient student with what an effective teacher does to foster this behavior. For example, if students are expected to decode and understand what is going on, then teachers must communicate clearly. This means the teacher must give accurate directions, specify class tasks clearly, and present new information in a clear, orderly manner. In addition, effective teachers actively work at engaging

students in class task completion, communicate their expectations that students can complete them successfully, and inform students how to know when they have completed class tasks successfully. During instruction, they monitor students' work and provide immediate feedback with relation to task completion. Feedback focuses on letting students know if they are achieving accuracy in task completion, or if not, how to achieve accuracy in completing tasks.

The immediacy of providing feedback about task completion during instruction cannot be too strongly emphasized. Effective teachers intuit which students need active monitoring and which require immediate feedback, and they make certain that these students are constant recipients of their attention. As noted in chapter 3, some students need this feedback more than others. With effective feedback, these students have a better chance of mastering the lesson content. Without it they are often doomed to failure in academic tasks.

Mediation of Effective Bilingual Instruction

Mediation of instruction is particularly important to obtaining student functional proficiency (SFP). Effective teachers accomplish this by differentiating instruction to accommodate the varying needs and learning characteristics of their students. Both their own instructional behavior and the structure of class tasks are altered in order to accommodate students' particular learning characteristics and needs, personal or cultural characteristics, and linguistic characteristics.

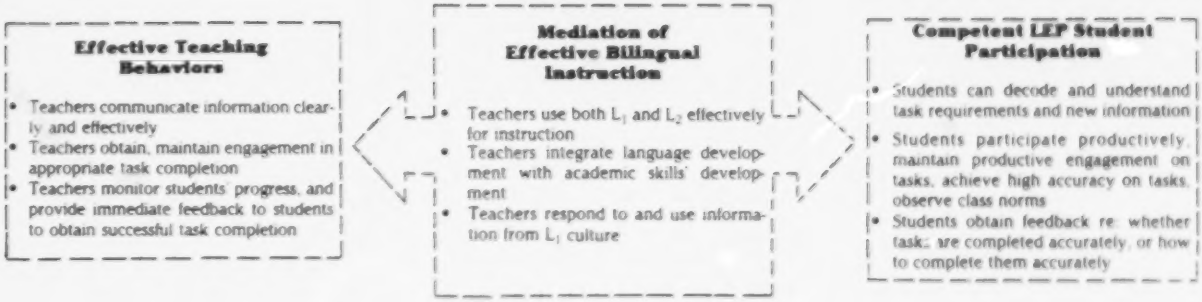
The SBIF study showed how this is accomplished in effective bilingual instructional settings (see figure 7). Because their students had as their native language (L_1), a language other than English (L_2), the 58 teachers in the SBIF sample effectively mediated instruction, by using two languages, by integrating English language development with basic skills instruction, and by using information from the students' home cultures.

Using Two Languages

The language of classroom instruction is a special language. As was noted in chapters 2 and 3, for students this requires understanding not only new concepts and new information, but knowing the rituals of classroom life and how to participate appropriately in completing class tasks. As we have seen, student functional proficiency requires decoding and understanding task demands and expectations and obtaining feedback regarding accuracy in task completion and how to achieve it. When the primary mode for instruction is English, LEP students are at a decided disadvantage. In a sense, they are denied access to instruction unless some provision is made to ensure that they understand what is required for successful class task completion.

One way that teachers in the SBIF study mediated effective instruction in order to ensure that LEP students had access to instruction was by *using L_1 some of the time for some of the content for some of the students.* Although it varied across sites, across grade levels, and with relation to the lesson focus, English was used for instruction approximately 60 percent of the time, and L_1 (or a combination of L_1 and L_2) approximately 35 percent. In addition, teachers alternated languages

Figure 7
Mediation of Effective Instruction to Produce Competent LEP Student Participation


Effective Teaching Behaviors
• Teachers communicate information clearly and effectively
• Teachers obtain, maintain engagement in appropriate task completion
• Teachers monitor students' progress, and provide immediate feedback to students to obtain successful task completion
Mediation of Effective Bilingual Instruction
• Teachers use both L_1 and L_2 effectively for instruction
• Teachers integrate language development with academic skills' development
• Teachers respond to and use information from L_1 culture
Competent LEP Student Participation
• Students can decode and understand task requirements and new information
• Students participate productively, maintain productive engagement on tasks, achieve high accuracy on tasks, observe class norms
• Students obtain feedback re: whether tasks are completed accurately, or how to complete them accurately

relatively frequently when the situational context required it in order for LEP students to achieve understanding, usually for instructional development (50 percent of the time) and procedures/directions (about 33 percent of the time). Thus, when it was apparent that a LEP student (or a group of them) was not understanding instruction in English, teachers changed to L_1 to achieve clarity.

Two examples from the SBIF case studies illustrate the use of L_1 to mediate effective instruction. In a first- and second-grade class with large numbers of Puerto Rican students, the teacher was introducing the concept of long division (Villegas & Romero 1981). She gave each student a pile of plastic chips. Then she instructed them to take 18 chips and form three sets of chips. They were asked to place these into sections of an egg carton. The teacher asked, "How many chips do you have in each set?" The lesson was conducted predominately in English. When a LEP student, a girl, appeared to be having difficulty with the task, the teacher first used English to prompt her. When she still was not responding appropriately, the teacher wrote the numbers 21 and 7 on the chalkboard. In Spanish she asked, "How many would you place into each set if you had these numbers to work with?" The girl responded in Spanish, "Seven," and immediately began sorting the 18 chips into three piles.

In a third, fourth, and fifth grade class, the teacher was teaching a social studies lesson to the third grade students (Baker & Boothroyd 1981b). They were working with a large map of the United States placed on the wall. As the teacher handed a cutout of a state to a student, the student was to name the state and place it in the appropriate place on the map. The other students were directed to write the name of the state in the appropriate place on duplicated maps (worksheets) at their desks. The lesson moved quickly, with much participation by the students. Most questions and responses were in English. When one LEP student, a boy of very limited English proficiency, was called upon, the teacher gave directions first in English and then repeated them in Spanish. The student carried out the task successfully, pronouncing "Delaware" and placing it on the large map.

Integrating English Language Development with Basic Skills Instruction

Instructional language is used to specify, describe, and communicate class tasks to be accomplished, what the product is to look like, how to achieve the product, and so forth. Students learn the language of instruction while engaged in completing class tasks while using that language. Thus, if one intended outcome of bilingual instruction is to develop LEP students' English language proficiency so that they ultimately can function competently in monolingual-English instructional settings, then *proficiency is best developed with relation to learning the language of instruction while learning to participate competently in completing class tasks.*

Such an approach to developing English language acquisition was utilized by the teachers in the SBIF study. Regardless of formal instruction in English language skill development, like English as a second language (ESL) instruction

(either in the regular class or on a pull-out basis), these teachers also integrated English language development with regular basic skills instruction. For example, following instructional events in which teachers were observed to alternate between English and L_1 to achieve understanding of a concept, they often interrupted instruction in order to drill briefly on use of the new English terminology for new information related to the content they were covering and new concepts that were being taught. Later, they practiced this English terminology again, apparently to reinforce English language development.

For example, in a prelesson teacher interview, a teacher of LEP Navajo students talked about the attention she planned to give to language development (Goodman et al. 1981).

> I'll do it [vocabulary we are going to use]. I'll tell them in English, we'll name it [each word or concept] two or three times and we'll go over the meaning. . . . I'll tell them in Navajo, "This is what it means." That's the only way we can do it. It's hard [to build] new vocabulary. We repeat words over and over again.

Using L_1 Cultural Information

Teachers also made use of their understanding of LEP students' home cultures to promote engagement in instructional activity. This was the third important way in which effective instruction was mediated. Teachers' use of cultural information took linguistic as well as nonverbal forms. They (1) responded to or used L_1 cultural referents to enhance instruction, (2) organized instructional activities to build upon ways in which LEP students naturally participate in discourse in their own home cultures, and (3) recognized and honored the values and norms of LEP students' home cultures while teaching those of the majority culture.

L_1 cultural referents. Frequently during instruction, the SBIF teachers used information from the LEP students' home cultures to mediate effective instruction. These *cultural referents* took both verbal and nonverbal forms to communicate task and institutional demands. Teachers both initiated such behavior and responded to it when it was initiated by a student. For example:

> Following a severe reprimand during which a teacher described her behavior as "grasping the boy's arm," the teacher said, gently, "Now, mijito, you know better than that." When asked to explain the possible meaning of this action on her part, the teacher stated that this term of endearment took the sting out of the sanction, thereby saving face for the boy in front of his peers.

This example was in a class in which the LEP students' native language was Spanish. The term, *mijito*, is derived from *hijo* (son) with the diminutive, *-ito*, added. The result, *mijito*, roughly translates into *little son*. Among Hispanics, the term conveys fondness and belongingness, and teachers at the Hispanic sites frequently were observed to assume a maternal authority role in their classes, speaking to their students as they would to their own children. This was particularly true in the classrooms of younger students, who responded positively. Similar examples of the use of L_1 cultural referents were observed in the study for other ethnolinguistic groups.

Discourse rules from the L_1 culture. In their homes, children learn the rules of discourse naturally. This allows them to participate socially with other members of the family. It is by virtue of this constant interaction with others in their environment, of course, that children learn. The rules of discourse in minority culture families may not be similar to the rules of discourse in school. When this is the case, researchers have found that if the school environment accommodates the rules of discourse from the L_1 culture, learning is more likely to occur naturally (Philips 1972; Mehan 1979).

Given that instruction in U.S. schools is in English, it naturally follows that the rules of classroom discourse reflect those of the majority culture, communicated in the instructional task demands which underlie class tasks. Because they frequently differ from LEP students' cultural rules of discourse, this factor, coupled with insufficient skills in using English, can deter LEP students from participating competently in instruction until they understand and master the class rules of discourse.

Teachers in the SBIF study mediated class rules of discourse for LEP students by observing and integrating the rules of discourse from the L_1 culture into the way in which instruction was organized and how LEP students were encouraged to participate in class tasks. For example, in Hispanic cultures older children are assigned the responsibility of caring for their younger siblings. This fosters cooperation as a mode for accomplishing home tasks. In classes where Spanish was L_1, teachers utilized this information by frequently structuring demands into their instruction to which appropriate responses required working cooperatively with other students. Students were allowed to talk with each other as they worked, and to help each other with task completion.

Another example of this mediational strategy is drawn from the Navajo classes. Navajo teachers were careful when assigning students to reading groups. Following Navajo cultural norms, boys and girls from the same tribal clan were not assigned to the same reading groups.

In Chinese-language bilingual classes, teachers knew that students would complete tasks and await further instructions from them, rather than proceed automatically to other seat work. Thus, they built into their instruction ways to accommodate this culturally specific student participation characteristic while encouraging students to proceed on their own.

Teachers also planned class tasks that helped students acquire the rules of discourse that prevail in the majority culture. For instance, a fifth grade teacher of a class which was comprised of LEP Chinese-speaking students indicated that she used plays and role-playing situations that required students to act on their own rather than wait to be told what to do by an adult. In this way, she believed, her students were learning the task demands inherent in the discourse rules of the majority culture.

Values and norms of the L_1 culture. Teachers in the SBIF study were concerned that LEP students understand and learn to observe the values

and norms required to participate competently in monolingual English instructional settings. At the same time, however, they also were concerned that LEP students did not perceive that, when the values and norms of the majority culture were in conflict with those of their own culture, a priority of "rightness" might result by inference.

This concern is depicted in the following event from a class in which L_1 was Cantonese. The teacher used a value from the L_1 culture, embarrassment from losing face, as a cultural referent to shape students' behavior as they prepare for a public performance.

In preparing her class for a public performance before their parents, a teacher told her class that they must make a positive presentation of their behavior. "If parents see you laugh on stage, you will lose face," she admonished. "That's disastrous!" When students continued to act up, she added, "If you're laughed at, [then] I'll lose face!"

In these three ways, teachers in the SBIF study mediated effective instruction by utilizing information from the L_1 culture. Teachers frequently refer to mediation as *differentiating* instruction for various students, suggesting that some students require varying instructional strategies if they are to learn. When effective teachers have entire classes of students with varying learning characteristics or large portions of them as was the case in the SBIF study, they utilize a variety of strategies and personal resources in order to mediate instruction. In this case, because teachers possessed a second language as well as some knowledge of LEP students' native cultures, they were able to utilize this resource base in order to mediate instruction, and this furthered their students' ability to respond successfully to class task demands.

Instructional Congruence

Prior research on instruction has focused (1) on the identification of teaching and learning behaviors which occur during instruction and (2) on attempts to link these to instructional outcomes for students. This research informed the observational strategies used for data collection in the SBIF study. In addition to observations, however, considerable data were collected in which teachers were interviewed to determine their underlying philosophies and theories about instruction for LEP students, the goals of the lessons to be taught, and the demands they would structure into class tasks.

In these interviews, teachers in the study clearly specified class task demands and intended outcomes. They specified what students had to do to accomplish these accurately, and how they had to participate in order to be perceived as being functionally proficient. In addition, they exhibited a sense of teacher efficacy, frequently stating a belief in the ability of LEP students to learn and in their own ability to teach them.

Intent of instruction and a high degree of teacher efficacy became important when these were put to the ultimate test in the nine case studies of basic skills instruction from which lessons have been described in previous chapters. For each,

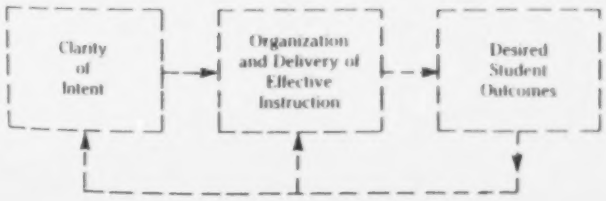
teachers were interviewed first to establish clarity of intent of instruction. Then, they were observed during actual instruction of the lesson, with one observer collecting data for the teacher and two for the four target LEP students. Following the lesson, teachers were interviewed to learn if instructional expectations had been fulfilled or if any event caused instruction to be adjusted, and if so, how. Students were interviewed to determine if they understood what they were supposed to do during instruction, if they thought they had accomplished assigned tasks accurately, how they knew when they were accurate, and how they obtained feedback with respect to completing tasks successfully.

An analysis of data across the case studies revealed a clear linkage between (1) the teachers' ability to specify clearly the intent of instruction, and a belief that students could achieve accuracy in class tasks; (2) the organization and delivery of instruction such that instructional demands reflected this intent, requiring intended student responses; and (3) the fidelity of student performance with intended outcomes. In other words, teachers were able to describe clearly what instruction would entail, to operationalize these specifications, and to produce the desired results in terms of student performance. This is depicted in figure 8.

The importance of the consonance among the intent of instruction, how instruction is organized and delivered, and the student consequences was demonstrated in many of the examples provided in earlier chapters. This is illustrated in the following excerpts taken from the case study of a second-grade class which included LEP Spanish-speaking students (Villegas & Romero 1981).

Prior to the lesson, the teacher stated that she intended to reinforce how the math concepts of division and multiplication are interrelated. She noted that the main goal of the lesson was to work on the concepts of division. She indicated that the students would use manipulative materials (plastic chips) to build sets based on the division problems they would be given.

Figure 8
Consonance among Clarity of Intent, Organization and Delivery of Instruction, and Student Outcomes in Effective Bilingual Instruction



The teacher proceeded as planned. She guided students through a review of addition and subtraction as inverse operations, reviewed sets containing different quantities, made larger sets based on multiplication, and then introduced division of the large sets. Students then proceeded to carry out the assigned class task.

After the lesson, she stated in her interview that she thought she had achieved the desired results. She pointed out that students had remembered the multiplication concepts better that she had expected, and that she introduced the division of more sets than she had originally intended because the students were doing so well with the concept. She noted in addition that none of the students had said, "I don't understand," which she indicated students would do in her class whenever they were confused.

Observations of the students' participation in the lesson confirmed that they were accomplishing class tasks with high accuracy. In this case, they were required to divide a larger number of plastic chips into sets containing smaller numbers of them. When the teacher moved to writing numerals on the chalkboard, rather than building sets with chips, the students responded accurately, calling out numbers.

In postlesson interviews, students' responses further demonstrated the consonance among instructional intent, organization and delivery of instruction, and student consequences. One girl said, "We started with a review of times tables, and then made small sets from big ones." She checked what she did by counting "to be sure the small ones [sets] had the right number of chips in them and that they were all the same [chips were evenly distributed across sets]."

Another student, a boy, said he "could do it with bigger numbers than the teacher used, like 198 made into 6 smaller sets." He explained, "It's easy [because] if 4 times 4 equals 16," then whenever the teacher asked him to make 16 into smaller sets, "Then each one will have 4 in it." He reported that the teacher had given him a "harder paper" to work on after the lesson "because I know how to do it."

Bilingual teachers observed in the SBIF study were nominated as being among the most successful at their respective sites. By watching them teach, we were able to identify how they compared with what is generally known about effective instruction, and what it was they did that was specific to good bilingual instruction. The significant bilingual instructional features identified provide insights into how effective bilingual teachers help their LEP students accomplish the two goals of bilingual instruction—acquisition of English language proficiency and acquisition of academic skills proficiency.

Two of these features are found in classrooms of all effective teachers: active teaching behaviors and the consonance of instructional intent with the organization/delivery of instruction and with student outcomes. Both are as necessary in bilingual instructional settings as in monolingual English instructional settings since they are tied to productive performance of students on basic skills tasks. And in addition, the three mediation of bilingual instructional strategies described in this chapter provided the SBIF teachers with ways to effectively differentiate instruction in order to meet the instructional needs of their LEP students.

Effective teachers understand well the principles of differentiated instruction. Effective bilingual teachers in the SBIF study—regardless of the bilingual education program type and ethnolinguistic characteristics of their students—used the three differentiated instructional strategies described above to mediate effective instruction in ways that build student functional proficiency in LEP and other students.

Chapter 5

The SBIF Study in Perspective: Implications and Issues for Bilingual Instruction

The ultimate test of utility for any piece of research is to determine if its findings are useful for the intended research consumer. In the case of the SBIF descriptive study, the primary research consumer was the classroom teacher, but other intended consumers of the findings included out-of-classroom schooling personnel, teacher educators, researchers, and policymakers.

When the bilingual teacher is the intended consumer of research findings, two issues are at stake. First, if they are to be promoted as being significant for instruction, the findings must be valid. That is, they must be verified as operating in the "real world" of bilingual instruction, and not merely be characteristic of a particular classroom under study. Second, findings must be perceived by bilingual teachers as being useful for instructional practice, or they will never be placed into operation.

The previous chapters have provided information and examples from the study to demonstrate the validity of the findings and to illustrate the application of the significant bilingual instructional features and related findings to effective instruction for LEP students. Building from this knowledge, the purpose of this chapter is to focus on the implications of the SBIF features and other study findings. Recurring questions practitioners have asked about appropriate instruction of LEP students and some enduring issues in bilingual instruction are presented.

The basis for the information presented builds upon one of the verification activities in Part II of the study, the Utility Meetings. Additional information is provided from meetings and conferences that have been conducted over the past two years in which practitioners had opportunities to react to and discuss the study findings.

How is the SBIF study different from other bilingual education research?

Another way of asking this question is, "Why should I *trust* these findings over those from other studies?" The answer lies in whether one is interested in putting into practice strategies which have been shown to be effective in terms of positive consequences for LEP students, as is the case with the SBIF findings.

One major way in which the SBIF study differed from other studies is the nature of the teacher sample. At each of the six national sites for Part I of the study, teachers were nominated who were considered to be among the most successful bilingual instructors in their school districts. Part I data analysis supported this assumption. As a group, the teachers were found to be very effective comparing favorably with what is generally known about effective basic skills instruction.

For example, one student outcome measure which contributed to establishing teachers' effectiveness was Academic Learning Time (ALT). To reiterate from the chapter 3 discussion, an ALT score takes into consideration the amount of time allocated by a teacher for a subject area, the amount of time a student is engaged in completing tasks in this subject area, and the proportion of this time a student achieves a high measure of accuracy in class task completion. Fisher et al. (1978) established that ALT can be observed during instruction, can be measured repeatedly, and correlates positively with student achievement on academic tests of basic skills (e.g. reading and mathematics).

In the SBIF study, on the average, teachers assigned 128 minutes per day to basic skills instruction. Of this, students averaged 108 minutes in class task completion, 84 minutes of which they were completing with high accuracy. Thus, they achieved on the average 84 minutes of academic learning time.

This amount of ALT was relatively high compared with the ALT achieved by elementary school students in prior studies (Fisher et al. 1978; Fisher 1976; Stallings & Kaskowitz 1974). In the Beginning Teacher Evaluation Study (BTES), for example, students achieved an average ALT score of only 52 percent (Fisher et al. 1978). In other words, these students were engaged in completing class tasks with high accuracy for only 52 percent of the time their teachers actually spent on instruction.

A second way in which SBIF teachers established their effectiveness is in use of *active teaching* behaviors. Good & Grouws (1979) established that elementary teachers of mathematics whose students achieved high performance used what they termed active teaching. In comparison, teachers whose students achieved less satisfactory performance were not observed to use these behaviors. As discussed in chapter 4, active teaching behaviors are similar to those identified for effective teachers in other research on effective basic skills instruction (see

Rosenshine 1979; Anderson, Evertson & Brophy 1979; Tikunoff, Berliner & Rist 1975). Teachers in the SBIF study were rated high in use of active teaching behaviors.

Thus, when compared with what we know about effective instruction generally, the SBIF study teachers—initially nominated to be among the most successful at their respective sites—established that they were, indeed, effective teachers. It follows, then, that if one wants to identify significant features of bilingual instruction, studying the teaching of teachers who are identified as being effective will provide useful information regarding effective instruction of LEP students. Only then can we be assured that we are studying bilingual instructional features which will result in increased performance of LEP students in basic skills attainment, one of the two goals of bilingual education.

The five SBIF significant instructional features were identified and described in Part I of the study. What occurred in Part II?

Following the identification of significant bilingual instructional features in Part I of the study, we were concerned whether the features would meet the tests of validity and utility. That is, we wanted to be sure that they appeared in other effective bilingual classes and could be used by other bilingual teachers. Thus, we designed Part II of the study to focus on four verification activities.

First was the question of general verification. Given that we found the five SBIF features to be significant in the 58 classrooms of Part I of the study, we asked whether these features would be found in other classes serving other populations of LEP students. To answer this question, we studied two types of instructional situations: classes whose teachers were nominated as successful and a sample of classes whose teachers were not nominated.

Essentially, the five significant bilingual instructional features were found to similar degrees in both instructional settings in Part II, with the exception of the absence of use of L_1 in classes with nonbilingual teachers (Fisher, Guthrie, and Mandinach 1983). One explanation for this is that, although not formally identified as successful bilingual instructors, even the teachers studied in Part II who were not nominated turned out to be effective instructors of LEP students. Regardless, the five SBIF features occurred (were verified) in the new sites in Part II of the study.

Stability was the second question. In prior instructional research, teachers were found to vary in their instruction from one year to the next. Now, we asked two kinds of questions. One focused on teachers and the other on students. Of ten teachers who participated in Part I of the study, we asked, "Given a new group of LEP students, would teachers remain stable in their use of the significant bilingual instructional features observed in Part I, or would they change?" If they changed, we were interested in what changes were made, why they were made, and whether these changes were more or less effective in terms of consequences for LEP students. Of 85 LEP students studied in Part I, we asked, "Given a new

classroom, would instructional context or process and student performance change, and if so, how?"

All ten Part I teachers who were studied in Part II utilized the five SBIF features with their newly assigned classes. When instruction varied from the previous year (in class organization) for example, teachers explained that it was because of administrative policy shifts or the changing composition of the student population. Generally, as a result of school district program changes, there was an increased emphasis in teaching reading in English in Part II. This, in turn, was reflected by increased use of L_2 (English) during instruction. L_2 increased from almost two-thirds of the time for instruction in Part I to three-fourths of the time in Part II. Language alternation between L_1 and L_2 seemed to be related to this factor as well. Generally, however, the teaching behavior of these ten teachers remained stable across the Part I and II school years (Villegas 1983).

Since most students in the study sample moved from bilingual classes in Part I to nonbilingual classes in Part II, there was a corresponding increase in use of L_2 in their new classes. Even so, student performance remained stable—the percentage of student time engaged and of time during which students completed assigned class tasks with high accuracy remained about the same or increased in Part II (Guthrie & Fisher 1983).

Third was the question of utility. We asked, "Are the significant bilingual instructional features identified in Part I useful to other practitioners in terms of improving instruction for LEP students?" Meetings were conducted at each of the Part II sites; teachers, principals, administrators, and teacher educators were invited to attend. Study findings were presented, and participants discussed their implications for practice in their own situation and in terms of their own instructional roles.

There was unanimous agreement among the meeting participants that the instructional features were useful, particularly regarding the belief that SBIF features were important for effective instruction of LEP students. Various recommendations were made concerning the utility of the features for inclusion in teacher training and staff development. Implications for policy regarding instruction and testing were also suggested (Tikunoff 1983b).

The fourth question was one of compatibility of the SBIF findings with current research in a variety of relevant fields. To address this issue, critical papers were commissioned from five well-known educational researchers. These were presented and discussed at a meeting of practitioners, policy developers, legislative representatives, and personnel from federal, state, and local education agencies held in Washington, D.C., in February 1983.

Findings from the study were deemed consistent with findings from the five authors' own research (Tikunoff 1983d). Topics and authors were: *Active Teaching, Teacher Expectations, and Student Perceptions in Regular and Bilingual Settings* (Thomas L. Good); *Effective Language Use in Bilingual Classrooms* (Lily Wong Fillmore); *Second Language Acquisition in School Settings* (Christina Bratt Paulston); *Implications of the SBIF Descriptive Study for Teacher*

Education (George Blanco); and *Classroom Participation as an Interactive Process* (James Cummins).

All the above activities were monitored by panels of advisors. A Seminar of Scholars critiqued the research questions and procedures. A Policy Implications Advisory Panel reviewed findings, beginning with Part I and continuing through Part II, to identify critical implications for bilingual and other education policies.

The SBIF finding concerning the proportionate use of L_1 and L_2 during instruction appears to conflict with other research findings. What does this mean for effective bilingual instruction?

There has been considerable speculation about how much L_1 (native language) and L_2 (English) should be used during bilingual instruction of LEP students. Various pieces of research appear to advance conflicting recommendations.

Teachers in Part I of the SBIF study, on the average, used English (L_2) about two-thirds of the time for basic skills instruction. (It must be kept in mind, however, that this figure is the result of averaging across the 58 classes, grades K-6. In reality, there was wide variance across grade levels and sites.) In Part II, Villegas (1983) reported that the ten teachers followed from Part I to Part II increased the amount of English to three-fourths of the time during basic skills instruction. Three of these teachers further reported that they increased the amount of L_2 in instruction directly in response to administrative emphasis on both testing and teaching reading in English.

In contrast, Wong Fillmore (1983) reported that her data suggested a balance of 50 percent L_1 and 50 percent L_2 as being appropriate. Her recommendation is supported by Legarreta-Marcaida (1981).

On the surface, these findings appear to be contradictory. However, one must look beyond the findings to examine the conditions under which they were established. For example, the varying contexts of the individual pieces of research might explain the differentiation in data across studies. Deciding how much L_1 and L_2 to use for bilingual instruction, then, depends on how closely a given situation aligns with the contexts of the various research studies and their findings that are reported.

Before deciding what amount of each language to use for bilingual instruction of LEP students, there are several questions to be asked.

What was the nature of the teachers studied? In Part I of the SBIF study, teachers were nominated as being the most successful bilingual instructors at their respective sites. Data confirmed that, compared to what is known about effective instruction, these teachers appeared to be quite effective. One possible explanation for the variance across studies of the amount of L_1 and L_2 used, then, rests with what kinds of teachers were studied. In other words, when more effective bilingual teachers are compared with a random sample of teachers, quite different results may result.

What is the L_1 and/or L_2 proficiency of the LEP student population in a given class? One can expect that classes populated with LEP students who are more

English proficient will result in greater use of L_2 for instruction unless the intended goal is to develop students' proficiency in another language. In the latter case, proficiency in that language will determine the degree to which a teacher can rely on its use for instruction. In general, younger students, and those with less experience in use of L_2, require greater use of L_1 during instruction until they develop sufficient proficiency in L_2.

What percentage of the class is LEP? Large numbers of LEP students at varying degrees of proficiency in L_2 specify different instructional treatment in terms of proportionate use of L_1 and L_2 than classes in which there are fewer LEP students.

How many languages are represented among the LEP students in a given class? If there are several, and the teacher is instructionally proficient in only one language other than English, it follows that this will impact upon the use of L_1 for instruction. Many schools resolve this by providing teacher assistants who know the respective languages represented by the LEP students for purposes of translation.

What time of year is it? The time of school year might impinge upon the amount of L_2 a teacher can expect to be able to use. For most school-based research like the SBIF study, data tend to be collected between January and the end of the school year. The assumption is that classes will be functioning normally by then, so observers will be less obtrusive in classrooms. However, teachers in the SBIF study who analyzed their own data reported that they had used more L_1 at the beginning of the school year, and that by spring they used L_2 more frequently because by that time their students had become more proficient.

Is the instructional objective developing English proficiency or proficiency in L_1? The answer to this question ought to result in a considerable difference in the amount of L_1 and L_2 used for instruction. In those classes where the objective is maintaining a student's L_1 (for example, teaching reading in Spanish before teaching it in English), it follows that there would be considerably more use of L_1. The converse would be true if the instructional objective is to develop English proficiency as quickly as possible.

What is the content area? The SBIF study recorded instructional information only during basic skills instruction (i.e., reading and other language arts, language development, and mathematics). Because tests in these areas were scheduled to be given late in the spring, teachers reported that they were compelled to rely more on L_2 for instruction since tests were administered in English for the most part. It is quite likely that proportionate use of L_1 and L_2 varied for other content areas in these same classes.

To summarize, in order to estimate how much to use L_1 and L_2, a teacher must consider a number of instructional context issues.

According to our school district policy, we are not allowed to alternate languages (between L_1 and L_2) during instruction. This is because we have been told that alternating languages tends to confuse the child. What do you make of this policy in light of the SBIF finding concerning language alternation?

Considerable confusion surrounds the issue of whether or not to alternate between a student's native language (L_1) and English (L_2) during instruction. Like many other instructional issues, decision making for this question goes beyond either "yes" or "no." It requires addressing at least two issues, context of instruction and purpose for language alternation.

Before discussing these issues, it should be made clear what is meant by *language alternation*. Language alternation is the spontaneous changing of languages during instruction in order to translate or otherwise present and explain material which has just been presented in the other language. As one teacher in the SBIF study explained it, "I look up and see a puzzled expression on a few of my students' faces. I ask them in Spanish, 'Did you understand what I just said?' Then I repeat in Spanish the portion of the lesson just covered in English. When I am sure they have understood, I return to the lesson using English."

Language alternation differs from what linguists refer to as *code switching*. Code switching usually is defined as switching between two languages (codes) during conversation between two persons or among several. Those engaged in the conversation understand both languages being used, and the flow of conversation is not broken by switching from one language to another. Apparently, code switching results from opting between two languages to use words or phrases which are most familiar or which communicate best.

Teachers in Part I of the SBIF study alternated between L_1 and L_2 for purposes of achieving clarity. This finding does not infer—nor should it be used to infer—that they were code switching when they did this. Instead, they used either L_1 or L_2 to present complete ideas and explanations. When it became clear to them that a student was not understanding, they changed to the other language and repeated approximately what they had just said in the first language.

To determine whether or not language alternation would be useful as an instructional strategy, two issues need to be addressed: (1) what is the instructional context in which languages are alternated, and (2) what is the purpose behind language alternation?

The *instructional context* should determine whether or not language alternation is appropriate. For example, when the context is teaching reading in Spanish, teachers may decide to use only Spanish to reach comprehension. This is similar to classic *immersion* techniques wherein a teacher may understand a student's response in one language but choose to answer only in the language being developed. In this instance, teachers must decide whether or not language alternation is appropriate, and if so, under what circumstances.

Teachers make such decisions taking into account the frustration level a given student may have reached and whether or not this is interfering with learning. Effective teachers make use of every available resource—including knowledge of a LEP student's native language—to ensure that students learn. It is unlikely that an effective teacher would allow a student to reach unreasonably high levels of frustration if using that student's L_1 could alleviate a particular problem and allow the student to get on with class task completion.

The purpose for language alternation should be tied to achieving effective instruction. Teachers in the SBIF study were observed to alternate between English and L_1 in order to achieve understanding of concepts, procedure, products, and so forth by their LEP students. Languages were alternated relatively frequently when the instructional context required it. Most frequently, language alternation was directed toward one LEP student who appeared to be having difficulty understanding instruction. At other times, language alternation was directed at a group of LEP students.

Fifty percent of the instances of language alternation that were observed in the SBIF study were for the purpose of instructional development in a content area, and about 33 percent of the instances were for giving directions or explaining procedures. The SBIF teachers typically did not use LEP students' native language for purposes of sanctioning them for misbehavior. In fact, in their interviews teachers expressed a belief that such use of LEP students' native language put it into a negative context, so they would not want to use L_1 for this purpose.

In terms of instruction, language alternation makes sense. As was pointed out in chapter 3, students cannot be expected to function proficiently in accomplishing class tasks if they do not understand what is expected, what the instructional product is to be, or what information is required to complete tasks. LEP students are at a decided disadvantage in this regard when English is the only language used for instruction. Teachers who can use L_1 when necessary to clarify and explain ideas, concepts, procedures, and so forth better ensure that LEP students can understand the requirements of class task completion.

Bilingual instruction has been referred to as a "grass roots" movement. This is to say that, in the absence of solid evidence of "what works," practitioners have used their own conventional wisdom and practical knowledge, and have adapted materials and strategies from ESL programs developed primarily for adults for use with younger students. Unfortunately, lack of information about effective instructional strategies for LEP students has led to policy decisions which also have been based on conventional wisdom, or what seemed to make sense at the time. Given that the instructional goals for LEP students are *both* (a) developing English proficiency while (b) progressing in academic skills development, teachers who can use L_1 and L_2 effectively for instruction need to be given the policy support to do so. The SBIF study finding concerning language alternation certainly suggests that policy that disallows language alternation needs to be examined in light of this evidence.

Basic skills instruction comprised 128 minutes of instructional time in the SBIF study classes. Given that a typical school day is five to six hours in length, isn't this too small an amount of time to devote to basic skills?

The SBIF study was designed to inquire into that portion of the school day devoted to basic skills instruction. This included instruction in reading and other language arts, language development, and mathematics. As the teachers in the SBIF study were nominated for their effectiveness, and were shown to be so in

subsequent data analysis, it naturally follows that they would give similar attention to basic skills instruction for LEP students. Thus, it is important to know that the discovery that 128 minutes of instructional time was allocated to basic skills instruction appears to align with what other researchers have learned, generally, about effective instruction at the elementary school level. Even so, some clarification of this finding is in order.

First, the minutes reported are based on a research construct called, *allocated instructional time*. This is the amount of time a teacher actually spends instructing students. To arrive at allocated time, an observer used a stopwatch to assess the total time assigned to instruction in a content area, then deducted the amount of time used for other purposes. Counted among the deducted time was time taken for activities such as passing out and collecting texts and materials, interrupting instruction to handle distractions, delivering reprimands or exerting behavior control over students, transition time between two instructional activities, and any side conversations that diverted attention from the topic underway. Thus, the only time counted as time allocated to instruction was the amount of time teachers were actually engaged in instruction with students.

A second factor to consider regarding average allocated time is that it was aggregated across the 58 classes. These classes were comprised of kindergarten through sixth grade with only three exceptions, and more classes were at the lower than the upper grades. One must remember that a kindergartner typically spends only one-half as much time in school each day as a sixth grader. Thus, as an average, this 128 minutes of time allocated to basic skills instruction appears reasonable.

A third factor was that the data which produced this finding were collected in the spring, a time when most schools providing instruction to LEP students are preparing to administer basic skills achievement tests. In their interviews, SBIF teachers revealed an anxiety about the coming tests, and appeared to be conscious of spending increased time in instruction they perceived to be relevant to what they though might be covered on the tests. This is not generally an unusual attitude among teachers when testing time approaches. However, it is not clear from the data whether or not the time of year influenced the amount of time allocated to basic skills instruction.

In summary, teachers in the SBIF study were found on average to allocate 128 minutes per day to basic skills instruction—time spent actually instructing, not handling classroom management activities. Various other findings regarding student functional proficiency (for example, see chapter 3) and teacher effectiveness (see chapter 4) further suggest that a more important consideration is the quality, not simply the amount, of instructional time in a class serving LEP students.

We are taught in our teacher training courses that effective teaching requires using a variety of classroom organizational practices like grouping, individualized instruction, peer tutoring, learning stations and so forth. However, these approaches were not found to be significant in the SBIF study. I ...is a contradiction?

Teachers in the SBIF study used a variety of instructional arrangements to achieve similar instructional goals. For example, while students were instructed as a single group for an average of slightly more than half of the school day, for an additional 46 percent of the school day they were taught in instructional groups. The most frequent grouping arrangement was two or three groups working concurrently on separate assignments. Grouping decisions were most often based on students' English proficiency, and the content of instruction when students were grouped was typically reading or other language arts (Fisher et al. 1981).

An examination of the nature of class tasks, however, reveals that students were required to work independently, 90 percent of the time either at seat work tasks or in recitation groups. Only very infrequently were they required to cooperate with other students or to work on teams in order to complete class tasks. Thus, grouping appeared to be for purposes of placing students with similar English proficiency into groups, and differentiating tasks among the groups in terms of task complexity, rather than for teaching the skills of cooperation or team decision making.

In interpreting these findings, it is important to keep in mind two aspects of the study. First, to be significant, an instructional feature had to meet the four criteria of significance established for the study. That is, a feature had to (1) be identified in the literature as significant for the instruction of LEP and other students, (2) have occurred frequently and with high quality in all SBIF classes at all sites during the time they were observed, (3) be identified by SBIF teachers as significant when they analyzed their own instructional protocols, and (4) be associated with desirable consequences for LEP students. Grouping arrangements are an integral part of the organization of all classes, not just those which provide bilingual instruction. In addition, the forms grouping takes, and the instructional purposes behind them, vary from class to class depending on such factors as the age of the students, varying ability levels, and levels of English proficiency, difficulty of lesson content, and so forth. Therefore, given differences in grade levels and in students' proficiency in L_1 and L_2, among other things, it is probably unlikely that any single form of grouping arrangement would have been identified in the SBIF study as being significant for bilingual instruction of LEP students.

A second aspect of the study which has bearing on this set of findings is the time of year observations were made. Classes in the SBIF study were observed for ten full observer days in the spring. Because of scheduling difficulties, the majority of observations took place during the period immediately prior to end-of-school-year testing. Thus, it is possible that teachers focused on preparing students for the coming tests in reading and mathematics. Since review tasks used by teachers tend to emphasize recitation and worksheet completion, regardless of whether the group includes the entire class or a subgroup of students, the SBIF findings are consistent with what one might expect to occur in classrooms at this time of the school year.

Is there some information from the SBIF study that can help address the effective instruction of LEP students by nonbilingual teachers?

Since the SBIF study sought to identify significant features of bilingual instruction, teachers who were studied in Part I were all bilingual. In addition, as previously underscored, they had been nominated as being among the best bilingual instructors at their respective sites. Thus, findings from the study are indicative of successful instruction of LEP students in bilingual instructional settings. Nevertheless, some speculation can be made about which of the SBIF features could be used by nonbilingual teachers for the instruction of LEP students, and how other aspects of the SBIF features might be adapted or accommodated.

In this regard, it is important to note that while the sample of teachers for Part I of the study was comprised solely of bilingual instructors, in Part II a number of nonbilingual teachers who were nominated were added. In general, the SBIF features were as effective in these latter classes to approximately the same degree and with similar outcomes for target LEP students. An obvious exception concerns the use of a LEP student's native language for instruction, inasmuch as nonbilingual teachers could not be expected to do this. Thus, of the five SBIF features, four can be used effectively for the instruction of LEP students by all teachers regardless of whether they are bilingual.

The fifth feature, using L_1 for a portion of instruction for purposes of assuring clarity and understanding, can be accommodated in several ways when the teacher is not bilingual.

Basic to effective instruction are teachers who themselves are effective. Two of the SBIF features suggest that all teachers of LEP and other students should (1) use active teaching for basic skills instruction, and (2) be able to provide curriculum and lessons which tie the intent of a lesson to how it is organized; present clear explanations, demonstrations, and review of content and procedures; and produce the appropriate outcomes for students.

A third SBIF feature concerned the use of LEP students' native language (L_1) for a portion of the instruction in order to ensure that LEP students understand the nature of class tasks and what is expected in terms of learning outcomes or products. Teachers who are not bilingual, or whose other language is not one spoken by their LEP students, may use several strategies to accommodate this feature.

For example, at one study site some target LEP students were recently arrived Vietnamese with very little, if any, English proficiency. Vietnamese teacher assistants with some English proficiency were hired and placed in their classes to work alongside the Vietnamese students, providing translation and interpretation of the teacher's instruction whenever it was required. As a result, these students were able to understand the requirements of class tasks. They were also able to seek assistance or to get feedback from the teacher assistants, and frequently used them to interpret when they needed assistance from the teacher.

This same process was established in another class using other students instead of teacher assistants. In this case, LEP students represented three language groups. The teacher, who was bilingual in English and Spanish, matched students by languages, seating newly arrived students with those who had developed some English proficiency. In addition she carefully communicated her expectations that the more English proficient students were to help their assigned newly arrived students with understanding and completing class tasks. Because new students enrolled in the school at different times during the school year, this system appeared to be a necessary and natural part of the instructional system in this classroom.

What appears to be critical is that LEP students who do not understand instruction in English are provided with translation in their regular classroom while they are engaged in responding to the demands of class tasks. In this way, they learn the lesson content while they develop student functional proficiency. Concomitantly, the English skills that are developed relate both to concept development and to learning appropriate responses to class task demands.

In contrast, students who are taken out of their regular classrooms to obtain (a) assistance with English acquisition, or (b) to complete class tasks with a person who speaks their L_1, are required to respond to very different task demands. Learning in a tutorial situation does not require the student to respond appropriately to the demands inherent in class tasks as a member of the collectivity called a class. In addition, the students' absence during any portion of instruction in the regular classroom raises the risk of missing important information and skill and knowledge development.

At another school, teachers who attended one of the SBIF Utility Meetings recognized this problem. They complained that their LEP students, who were taken out of their regular classrooms in order to work with teacher assistants who could speak their language, had a difficult time learning to manage instructional tasks when they returned to the classroom. In addition, they reported that LEP students who were pulled out of the classroom frequently missed instruction that was critical to their concept development.

As a result of interacting with others at the Utility Meeting around the "pullout" issue, the teachers determined that it was better to keep LEP students in their classes. When they returned to school, they convinced their principal to place the teacher assistants in their classrooms. A follow-up discussion with a few of the teachers revealed greater satisfaction with this approach. They believed that LEP students progressed much more quickly toward developing student functional proficiency when they remained a part of the regular class and when persons who could translate and interpret for them were brought into the regular classroom. In addition, the teachers reported that LEP students' English proficiency developed more quickly. They attributed this to the increased time in the regular classroom which, in turn, required the students to learn increasingly more English in order to negotiate class tasks.

A fourth SBIF feature which can be used by both bilingual and monolingual instructors of LEP students is the integration of English language development with

instruction in the content areas. Although LEP students received instruction specifically aimed toward developing their English proficiency, such as English as a second language (ESL) instruction, their teachers also built English language development demands into their regular instruction. This required LEP students to respond in English and to use increasingly more complex sentences.

Teachers seldom missed an opportunity to extend a LEP student's language development. When students used their L_1 to answer a question, teachers responded by saying, "Right. Now can you say that in English?" Students were encouraged to respond using complete sentences rather than single words. When teachers monitored work in progress, they frequently intervened in L_1, but changed the language to English before completing an explanation.

Along these lines, it is interesting to note that such approaches to students' language development is not a usual focus for teacher training. When it is included in the teacher training curriculum, it usually is required only for the preparation of bilingual or early childhood teachers. However, techniques and strategies for developing students' language can be useful for instruction at all grade levels and for all types of students. This would be a salient staff development focus for teachers in all schools. Obviously, such training is particularly important for teachers in schools serving significant numbers of LEP students. In addition, in a given school teachers might plan together to ensure that curriculum across grade levels develops concomitant English language in LEP students. In this way, regardless of the availability of instructional personnel who can use LEP students' L_1 for instruction, commitment to and capability for developing LEP students' English proficiency can be attained among members of a school facility.

Use of information from a LEP students' L_1 culture to mediate effective instruction is another SBIF feature that may be used in all classrooms. Of the 58 teachers who participated in Part I, all but five were both bilingual and bicultural. The other five, however, had acquired a second language and lived extensively in the country of that linguistic origin. Therefore, these teachers could draw upon information from their LEP students' L_1 cultures in order to mediate effective instruction.

Three kinds of cultural information were used: cultural referents, participant structures, and norms and values. Information for all three have been provided in a variety of ways for use by all teachers of LEP students who are not of their culture.

For example, one school district had experienced a recent influx of large numbers of Vietnamese children. The curriculum coordinator who attended the Utility Meeting at that site decided to develop a written document which explained and described various facets of Vietnamese culture. She used as her sources of information one of the teacher assistants who was fairly fluent in English. Together they interviewed parents to gather information about how children learned at home, what experiences they had previously had in schools in Vietnam, important holidays and celebrations, linguistic and paralinguistic information, and so forth. The result was a manual presenting descriptive information

about the Vietnamese students and their home cultures. Subsequently, the coordinator worked with teachers of these students to develop instructional strategies that built upon this cultural information.

Another example of this sort of activity occurred in a high school in New York City with a large Chinese student population. One of the teachers was a native speaker of English whose L_2 was Chinese. She had lived and traveled extensively in China, and was respected by her peers. The principal of the school encouraged her to take leadership in developing a publication for non-Chinese speakers which described the varieties of Chinese languages and dialects, and presented some of the cultural differences between going to school in the United States and in a Chinese-speaking nation. The resulting publication is now in its second revision. The teacher continues to add new relevant information in response to questions other teachers ask.

These two examples illustrate how cultural information about LEP students can be gathered and shared. In addition, faculties can plan together to determine what facets of this information can be utilized to design curriculum and instruction for LEP students. Information of this sort is particularly important when LEP students at a given school are from a variety of ethnolinguistic backgrounds. Because their cultures will vary, aspects of instruction that are intended to build upon cultural information can be expected to vary. Some division of labor among faculty members makes this task feasible when several different language groups comprise the LEP student population.

A prevailing issue among bilingual teachers is whether to teach reading first in L_1 and later in L_2. Do the SBIF findings suggest which is more effective?

The issue of reading first in L_1 or L_2 was not a central question in the SBIF study, so findings cannot inform concerns regarding which approach is more effective. However, because this issue was paramount in the minds of some of the teachers in the study, some of their insights and experiences can be shared. In turn, this information may shed additional light on this issue.

One data collection strategy in the study was to conduct extensive curriculum interviews with each teacher. They were tape recorded and later transcribed. These interviews focused on the instructional intent, the curriculum covered, and teachers' expectations and theories about instruction.

Teaching reading first in L_1 versus teaching reading first in L_2 was an issue relevant primarily to SBIF teachers of LEP students whose L_1 was Spanish. It was not an issue with teachers of Navajo or Chinese-speaking students.

These differences in concern levels may be attributed in large part to LEP students' L_1. Obviously, the written languages of English and Spanish include similarities which make transfer from learning to read in one symbol system to another relatively easy. Hence, the language with which to begin reading is a matter for conjecture. Trying to accomplish this with the Chinese symbol system would be far more complex, since the characters of Chinese do not translate directly into the English alphabet. In the case of Navajo—an oral language until

only recently—severe restrictions exist on what can be written rather than communicated in the traditional oral mode. Transfer of reading skills from one language to another would be particularly difficult in this case.

Among the Spanish-speaking SBIF teachers, teaching reading first in L_1 or L_2 was an issue primarily for teachers of very young students. In their interviews, considerable frustration was expressed concerning the dichotomy between what they believed about teaching reading, and what the school district required. When the teaching of reading in either language first went against their beliefs, these teachers perceived that it influenced instruction in other portions of the curriculum as well. For example, if teachers who believed LEP students should first learn to read L_1 were required to teach reading in English instead, they reported a perception of increased use of English in other areas of instruction as well. In fact, this was substantiated in the teacher behavior stability study conducted in Part II of the study (Villegas, 1983).

In addition, this issue appeared to be more relevant in situations where compliance was an issue as well. For example, New York City schools are under the Aspira Consent Decree, one facet of which allows parents to determine in which language their children will be tested. If parents select Spanish as the language of testing, then considerable school instruction must be conducted in Spanish so that students will develop Spanish proficiency to a level which will allow them to be successfully tested. This requires learning to read in L_1 as well as in L_2. Teachers who embraced "reading in L_1 first" as a part of their philosophy had little difficulty with this requirement. Advocates of "reading in L_2," however, expressed doubt and stress.

The converse was true, as well. Teachers who believed in reading in L_1 first and whose LEP students would be tested in English at the end of the school year agonized over whether or not to pursue their beliefs.

Another observation from the SBIF study concerns the conflict between teachers' instructional methods and parents' expectations for their children. Frequently, teachers complained that they were not able to act upon their beliefs about the teaching of reading, and sometimes about bilingual instruction as well, because parents expected that their children came to school to learn English. It was sometimes difficult, teachers reported, to explain to parents that bilingual instruction and reading in L_1 first were viable strategies for developing both English proficiency and academic skills.

One of the SBIF features is that teachers integrated English language development with teaching in the content areas. Is this a more effective strategy than traditional ESL instruction?

The finding that English was integrated into regular content instruction does not imply that LEP students did not receive instruction in English language development as a separate subject. ESL and other strategies were employed in a variety of ways for students in all the classes. What is significant about this

feature is that, in addition to whatever specific instruction in English development students received (whether in their regular class or elsewhere on a pullout basis), their teachers also integrated language development strategies with regular instruction in content areas.

The language of instruction used in classrooms is very different from that used for other purposes. ESL instruction tends to focus on developing general oral proficiency in English. Particularly when an individual is learning a second language, the words that are learned first are not those teachers typically use to teach concepts and skills and specify class tasks and procedures. In their interviews, SBIF teachers expressed a belief that concepts under development during instruction had to be incorporated into their LEP students' personal English lexicons regardless of how complex they were. In addition, students' daily interaction with completing class tasks afforded opportunities to learn English with relation to general classroom learning. Both obviously are important. Teachers generally believed that both were best accomplished when language development was integrated into everything else that goes on in a classroom.

I have been a bilingual teacher for ten years. Recently, in addition to my Puerto Rican students, our school has begun to receive students from many other language groups. How can I provide for these students when I am proficient only in English and Spanish?

A bilingual teacher confronted with LEP students from several ethnolinguistic backgrounds has a headstart on a teacher who is not bilingual. Still, for those LEP students whose L_1 is different from a bilingual teacher's two languages, strategies must be considered which are very similar to those recommended above for nonbilingual teachers.

The principles of language development and effective instruction are useful. In addition, alternative strategies will have to be employed to ensure proper translation from LEP students' L_1(s) so they are able to understand and respond appropriately to class task demands and teachers' expectations. Information about LEP students' L_1 cultures relevant for organizing and delivering instruction will have to be obtained. Much information along this line is contained in the previous question about monolingual teachers of LEP students.

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Appendix

Overview of the Significant Bilingual Instructional Features Descriptive Study

In October 1980, a study was initiated to inquire into what significant features, if any, are present in the successful bilingual instruction of limited-English-proficient (LEP) students. The *Significant Bilingual Instructional Features* (SBIF) descriptive study was one of several initiated under the U.S. Department of Education's Part C Research Agenda for Bilingual Education. Funded through the National Institute of Education, this three-year, multifaceted study was conducted by a consortium of nationally prominent education agencies and institutions that developed a proposal and subsequently was awarded a contract as the result of competition among several such groups.

The SBIF study consisted of two parts. Part I identified and described those features of bilingual instruction considered significant in terms of their consequences for LEP students. It was conducted during the 1980-81 school year. In Part II, these findings were verified in four major studies conducted during the 1981–82 school year.

Overall Purpose of the Study

The Part C Research Agenda for Bilingual Education responds to a congressional mandate issued in 1978. In search of information to aid in its decision making, Congress directed the Department of Education to formulate an agenda of in-

quiry into the needs of LEP students. The resulting research agenda was organized into three categories by a Part C Research Coordinating Committee.

Category A, *Assessment of National Needs for Bilingual Education*, focuses on studies which determine the number of students needing these services and the human resources required to fulfill them. Category B, *Improvement in the Effectiveness of Services to Students*, focuses on the types of services at the classroom and program level that best meet the instructional needs of LEP students. Category C, *Improvement in Title VII Program Management and Operation*, focuses on cost effectiveness issues with regard to planning and delivering technical services to Title VII grantees. The SBIF study was funded under Category B.

Consortium that Conducted the Study

The study was conducted by a consortium of nine educational institutions and agencies in collaboration with local school districts that historically have served the needs of student populations from varying ethnolinguistic backgrounds.

Members of the consortium, participating school districts, and targeted ethnolinguistic student populations in both parts of the study were:

- ARC Associates, Inc., in collaboration with the Oakland and San Francisco school districts (California) focusing on students whose home language was one of the Chinese languages;
- Far West Laboratory for Educational Research and Development, who focused on classrooms which contained students representing many home languages in the San Francisco schools;
- Florida State University, in collaboration with the Dade County (Miami, Florida) schools, focusing on Cuban and Cuban-American students whose home language was Spanish;
- Hunter College of City University of New York, who studied Puerto Rican students whose home language was Spanish in Community School District 4, New York City Board of Education;
- Navajo Nation Division of Education in collaboration with schools serving children of the Navajo Nation in northeastern Arizona;
- Southwest Educational Development Laboratory, who focused on Mexican and Mexican American students whose home languge was Spanish in the El Paso, Texas public schools.

Consortium members participating only in Part II of the study were:

- CEMREL, Inc., in collaboration with the Chicago, Illinois public schools, focusing on classrooms serving students from diverse ethnic backgrounds, but whose home language was Spanish;
- Northwest Regional Educational Laboratory, in collaboration with the Salem, Oregon, public schools, who focused on students whose home language was either Spanish or Vietnamese;
- University of Hawaii, in collaboration with the Hawaii Department of Education, focusing on Filipino students whose home language is Ilokano.

Description of the Study

The SBIF study was conducted in two phases. Part I identified and described features of bilingual instruction considered to be significant in terms of their consequences for LEP students. The sample for this portion of the study included 58 classrooms (53 of which were at the elementary school level) and 232 students at 6 nationally represented sites. Part II focused on verification of the features identified and described in Part I, and included 356 target students in 89 classes at 8 sites.

Classes identified as successful bilingual instructional settings were the focus of Part I of the study. It was supposed that significant bilingual instructional features were more likely to be found in such settings. Thus, teachers were nominated by other teachers, principals, district administrators, parents, and students formerly in their classes as being among the most successful practitioners of bilingual instruction at their respective sites.

In its first year, the study addressed research questions related to six sets of research constructs (see table 1). The data sources for two of these were outside the classroom, but considered to impinge upon and influence instruction and outcomes for LEP students. These were (a) what constituents of bilingual education considered to be indicators of success in bilingual instruction and what their consequences were perceived to be for LEP students and (b) what constituted the macrolevel context variables that defined the school, community, and school district in which the bilingual instructional settings in the study were located.

For instructional variables, there were two levels of data collection. Level 1 involved the collection of several kinds of data from all of the sample classrooms at each of the sites. Level 2 focused on only one or two classrooms studied intensively at each site in order to produce an instructional case study for each.

Level 1 data collection focused on four research constructs. Organizational structure of the class was in terms of language of instruction, lesson content area, work group size and composition, degree and nature of collaboration among students in completing class tasks, student choice options, nature and mode of teacher's evaluation of student's task completion, and interdependency of all these factors on task completion. Allocation of time was by (a) content, (b) language of instruction (L_1 and L_2), and (c) who the instructor is (teacher or other adult); related to (a) use of instructional materials in L_1 and L_2, (b) LEP and/or other students, and (c) different instructional activities. Teacher variables were in terms of active teaching behavior, teacher's expectations for LEP student performance, and teacher's sense of efficacy. Student variables were in terms of language proficiency, competence in participation in completing class tasks, engagement and accuracy with relation to task completion (measured by Academic Learning Time) in reading/language arts and mathematics, and social cognitive understanding of students.

Level 2 data collection resulted in nine intensive case studies of bilingual instruction. Included were two at the kindergarten level, one first-grade class, one

Table 1
Constructs, Research Questions, and Data Sources for Part I of the Study

Constructs	Research Questions	Data Sources
Indicators of successful bilingual instructional settings	What features/criteria do various experts among bilingual education constituent groups use in determining that a bilingual instructional setting (school and classroom), is successful? Constituent groups are: bilingual education program directors, principals, teachers, parents, etc. Are success indicators similar or different based on client groups, ethnolinguistic composition of LEP population, site, level of education (elementary school, junior high school, senior high school), and school classroom?	Open-ended interviews with representatives of various client groups at each of six proposed Part I sites. Bilingual Education Classroom evidencing success criteria.
Macrolevel context data	What is the school, community, bilingual education program, and family context within which each of the sample classrooms is nested? What, if any, similarities/differences in the macrolevel context exist across sites and classrooms?	Open-ended interviews with school principals, parents, others at the classroom site. Review of available documents and program plans. Informal observations in community. Project director and data collector knowledge of community.
Organizational structure of the classroom	(For each activity structure dimension) what forms are utilized in classrooms in bilingual teaching settings? Do differences on one dimension, e.g., language of instruction, interact with/appear to be related to differences in other dimensions, e.g., student choice?	Narrative descriptions based on in-class observations. General descriptive data obtained during in-class observation.
Allocation of time	How is time allocated in exemplary bilingual school settings by content area, language of instruction, student language characteristics resources, and category of teaching-learning activity. Does allocation of time differ according to configuration of macrocontent levels?	In-class observations using stopwatch and coding sheet.
Teacher variables	Which, if any, active teaching behaviors do teachers in successful bilingual school settings use when teaching reading and math?	Active teaching observation instruments.

Continued

Table 1 continued

Constructs	Research Questions	Data Sources
Teacher variables *(continued)*	What expectations do teachers in bilingual settings have for LEPs and students who speak the majority language? What, if any, similarities/differences in expectations occur across teachers based on teacher's mother tongue, years of teaching in a bilingual education program, professional development related to instruction of LEPs? What sense of efficacy is expressed by teachers? Does efficacy appear to be related to teacher's mother tongue, etc.? (see above) In teacher's opinion, what is intent of instruction? Is intent similar/different depending upon student language, age, subject area?	Curriculum interviews
	What patterns of interaction, in general, occur between teachers and students in bilingual school settings? What work activity and institutional demands are imposed by teachers in the classroom? Are these related to student's ethnolinguistic background, teacher's intent, sense of efficacy, expectations for students? What relationships exist, if any, between teacher intent and what the teacher does during instruction?	Narrative description of teacher behavior
Student variables	What is the language proficiency in L_1 and L_2 of the LEPs in each classroom, based on teacher ratings and other data sources?	Teacher ratings of language proficiency, other already available proficiency data
	What is the Academic Learning Time of LEPs in bilingual instructional settings, by classroom, site, and across sites?	Academic Learning Time data Descriptive narratives of student participation in the classroom
	What social cognitive understandings do LEPs express regarding instructional demands, teacher authority, distributive justice in application of classroom resources and specific work activity demands?	Social cognitive understanding interviews

Continued

Table 1 continued

Constructs	Research Questions	Data Sources
Student variables *(continued)*	How do LEPs participate in classroom instructional activities? Is one style of participation more productive for some students than others?	Narrative description of student behavior in the classroom
	What, if any, relationships exist between the LEP student's proficiency, ALT, participation style(s), and/or social cognitive understanding?	Participation style analysis

combination first-and-second-grade class, one second-grade class, one combination second-and-third grade class, one combination third-fourth-and-fifth-grade class, and two fifth-grade classes.

Case studies were designed to obtain more detailed instructional information with relation to (a) consonance of a teacher's instructional goals with outcomes of the lesson in terms of student performance; (b) students' understanding of instructional intent, procedures for completing class tasks, and information sources used in their completion; and (c) both teacher's and students' perceptions of instructional intent and results of participating in instruction.

In Part II of the study findings of data analyzed for Part I provided the focus for addressing four verification issues in Part II of the study.

One verification issue, generalizability, was whether instructional features identified and described in Part I, which were considered to be significant for bilingual instruction, would also be found in bilingual instructional settings for other ethnolinguistic groups of LEP students. A second verification issue, stability, was in terms of (a) stability of teacher behavior, studying a second group of LEP students for ten teachers in Part II who had been observed in Part I to determine if they were taught differently; and (b) LEP students' participation in bilingual instruction, following 86 students from their classes in Part I to their classes in Part II of the study.

A third verification issue, utility, was in terms of perceived usefulness of findings from Part I by practitioners for use in instruction, for administering bilingual instructional programs, and for training bilingual teachers. The fourth verification issue was compatibility of Part I findings with those from other fields of research. Five researchers from related areas addressed this issue in commissioned papers.

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